

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: John F. Acres et al.

Serial No. 09/373,034

Examiner: Jessica Harrison

Confirmation No.: 2149

Filed: August 11, 1999

Group Art Unit: 3714

For: **METHOD FOR OPERATING NETWORKED GAMING DEVICES**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Responsive to the Office Action dated April 17, 2003, enclosed are the following documents in the above-referenced application.

The fee has been calculated as shown below.

CLAIMS AS AMENDED					
For:	Number After Amendment	Previous Number	Extra	Rate	Additional Fee
Total Claims	23	23-20*	0	x \$18 =	\$0
Independent Claims	4	4-3**		x \$86 =	\$0
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- ☒ Applicant petitions the Commissioner to extend the time for response. The extension fee is included and a duplicate copy of this form is enclosed.
- ☒ Response to Office Action
- ☒ Reissue Application: Consent of Assignee; Statement of Non-Assignment
- ☒ Copy of Judgment in a Civil Case, U.S. District Court for the District Court of Nevada, Case No. CV-S-97-1883-EJW(LRL)
- ☒ Copy of Special Verdict Form, U.S. District Court for the District Court of Nevada, Case No. CV-S-97-1883-EJW(LRL)
- ☒ Copies of two (2) documents recorded in U.S. Patent and Trademark Office at Reel 011190, Frames 0933-0947 and Reel 011190, Frames 0948-0961
- ☒ Supplemental Declaration For Reissue Patent Application to Correct "Errors" Statement (John F. Acres)
- ☒ Supplemental Declaration For Reissue Patent Application to Correct "Errors" Statement (David Wiebenson)
- ☒ Supplemental Declaration For Reissue Patent Application to Correct "Errors" Statement (Alec Ginsburg)
- ☒ Original U.S. Patent No. 5,655,961



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Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

Alan T. McCollom
Reg. No. 28,881

MARGER JOHNSON & McCOLLOM, P.C.

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09/373,034

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UNITED STATES DISTRICT COURT

#12

DISTRICT OF NEVADA

* * *

MIKOHN GAMING CORP.,

Plaintiff,

v.

ACRES GAMING, INC.,

Defendant

ACRES GAMING, INC.,

Plaintiff,

v.

MIKOHN GAMING CORPORATION; NEW
YORK NEW YORK HOTEL & CASINO LLC;
CASINO DATA SYSTEMS; and SUNSET
STATION HOTEL & CASINO,

Defendants.

CV-S-97-1383-EJW (LRL)
(Base File)

REPORT & RECOMMENDATION

(Findings of Fact & Conclusions of Law Re: Claim Construction)

- This action involves patent infringement claims brought by Acres Gaming, Inc. ("Acres") against Casino Data Systems, Inc. ("CDS") and Mikohn Gaming Corporation ("Mikohn"). The matter presently before the Court is the construction of the asserted claims of United States Patent

1 Nos. 5,655,961 (the "961 patent"), 5,752,882 (the "882 patent"), 5,820,459 (the "459 patent") and
2 5,836,817 (the "817 patent")(referred to collectively as "the patents in suit") held by Acres. More
3 specifically, the Court is called upon to construe the meaning of various claim terms and phrases
4 disputed by the parties.
5

6 In January 2000, the Court held a hearing pursuant to *Markman v. Westview Instruments,*
7 *Inc.*, 52 F.3d 967 (Fed.Cir.1995)(enbanc), *aff'd*, 517 U.S. 370 (1996), to determine the meaning
8 of the disputed claim terms and phrases. At the hearing, the Court allowed the parties to present
9 expert testimony for the purpose of providing the Court with background in this technical area. In
10 addition to the evidence and arguments presented by the parties at the *Markman* hearing, the court
11 has considered numerous pre-hearing and post-hearing briefs and other filings. Based thereon, the
12 undersigned recommends that the Court adopt the following findings of fact and conclusions of law.
13

14 FINDINGS OF FACT AND CONCLUSIONS OF LAW¹

15 I. INTRODUCTION

16 1. The '961 patent, titled "Method of Operating Networked Gaming Devices," was applied for
17 on October 12, 1994 and issued on August 11, 1997. (Mikohn Br. p. 1 at ¶ 2; Acres Br. p.1 at ¶
18 1.)²
19

20 2. The '882, '459 and '817 patents are each titled "Method and Apparatus for Operating
21

22 ¹ To the extent, if any, that the findings of fact may be deemed conclusions of law, they shall also be
23 considered conclusions of law. Similarly, to the extent, if any, that matters expressed as conclusions of law may be
24 deemed findings of fact, they shall also be considered findings of fact. *See Miller v. Fenton*, 474 U.S. 104, 113-14
(1985).

25 ² Citations to "Mikohn Br." and "Acres Br." refer to Mikohn's Proposed Findings of Fact and
26 Conclusions of Law (#378A) and Acres' Proposed Findings of Fact and Conclusions of Law (#380), respectively.
Future citation to "CDS Br." will refer CDS' Post Markman Hearing Memorandum (#372).

1 Networked Gaming Devices." (Mikohn Br. p. 1 at ¶ 3.) The applications for the '882, '459 and
2 '817 patents were each filed on June 6, 1995. (Acres Br. p. 1 at ¶ 2.) The patents issued on May
3 19, 1998, October 13, 1998, and November 17, 1998, respectively. Each of the '882, '459 and
4 '817 patents is a division of the '961 patent. (Mikohn Br. p. 1 at ¶ 3.)

5
6 3. The patents in suit share the same specification (i.e., the text and drawings).³ (Mikohn Br.
7 p. 1 at ¶ 4; Acres Br. p. 1 at ¶ 1.) Only the claims of the patents in suit differ, although many use
8 similar terms and phrases. (Acres Br. p. 1 at ¶ 1.)

9
10 4. The patents in suit relate "generally to gaming devices, and more particularly to a method
11 and apparatus for controlling gaming devices interconnected by a computer network." ('961 Patent
12 Specification ("'961 Pat.") at col. 1, ll. 1-5).⁴ The specification describes the following system:

13 A system for operating networked gaming devices is described. The
14 system according to the invention allows a casino in which the system
15 is installed to run promotions or bonuses on any properly equipped
16 gaming machines while simultaneously gathering player tracking and
17 accounting data from all machines.

18 (Id. at col. 2, ll. 45-50.)

19 5. The basic architecture of the patented system involves a "host computer" connected to a
20 plurality of "gaming devices." (Id. at col.2, ll. 54-56 ("The system includes a plurality of gaming
21 devices or machines connected to an associated floor controller over a network"); col. 6, ll. 20-24;
22 col. 7, ll. 1-7; Fig. 1.) The specification describes the patented system as follows:

23
24 ³ As will be discussed herein, the specification is a detailed written description of the patent.

25 ⁴ Because the patents in suit share the same specification, the Court will cite to the '961 patent
26 specification unless otherwise noted.

1 The system includes the following capabilities: remote
2 reconfiguration, accounting data extraction, integrated player
3 tracking, and cashless play. Remote reconfiguration includes sending
4 a reconfiguration command from a host computer to one or more of
5 the gaming devices. The gaming devices, on receiving a
6 reconfiguration command will reconfigure its [sic] jackpot payout
7 schedule in accordance with the reconfiguration command.

8 (Id. at col. 6, ll. 24-31); (Mikohn Br. p. 1 at ¶ 5.)

9 6. The patented system allows the casino to "select" which gaming devices are to be used in
10 a specific promotion: "The system provides the capability for the casino to select which of the
11 plurality of machines are used in any given promotion. The system further allows any number of
12 different promotions to operate simultaneously." ('961 Pat. at col. 2, ll. 50-53.)

13 7. A gaming device that has been selected to be part of a specific promotion receives a
14 "reconfiguration command," causing the gaming device to reconfigure its "payout schedule":

15 Each promotion involves sending a reconfiguration command from
16 the floor controller to a gaming device that has been selected to be
17 part of a given promotion over the associated network. Upon receipt
18 of the reconfiguration command, the gaming device reconfigures its
19 payout schedule in accordance with the received reconfiguration
20 command.

21 (Id. at col. 2, ll. 61-67.)

22 8. The specification expressly provides descriptions of four different promotions: (1) multiple
23 jackpot; (2) mystery jackpot; (3) bonus jackpot; and (4) progressive jackpot. (See id. at col. 3, ll.
24 2-12; col. 6, ll. 48-57; col 25, ll. 41-47; col. 25, l. 48 to col. 26, l. 24.) The specification states,
25 however, that many other embodiments of the bonusing invention are possible. (See id. at col. 3,
26 ll. 2-8.)

1 9. In the multiple jackpot promotion, a gaming device that is selected to be part of this
2 promotion "reconfigures its payout to be a multiple of its default payout schedule." (Id. at col. 3,
3 ll. 3-5.)

4 10. According to the patent specification, a "mystery" jackpot is a jackpot that is paid to a player
5 "even when a jackpot was not won." (Id. at col. 36, ll. 27-30.) As explained in the patent
6 specification, the mystery jackpot "reconfiguration command can specify that the mystery jackpot
7 is to occur after a certain number of coins, a certain number of handle pulls, or a variety of other
8 conditions specified by the reconfiguration commands." (Id. at col. 36, ll. 29-33); (Mikohn Br. p.
9 3 at ¶ 10.)

10 11. In the bonus jackpot promotion, a gaming device that is selected to be part of this promotion
11 "reconfigures its payout schedule to payout an additional bonus amount when certain conditions are
12 met." ('961 Pat. at col. 3, ll. 5-7.)

13 12. In the progressive jackpot promotion, "two or more gaming devices are combined in a
14 progressive jackpot having a progressive jackpot payout schedule." (Id. at col. 20, ll. 16-18.) As
15 explained by the patent specification, the progressive jackpot promotion involves a reconfiguration
16 command that is sent to a plurality of gaming devices:

17
18 Another reconfiguration command allows any number of machines on
19 the network to be combined in a common jackpot having a common
20 jackpot payout schedule, wherein the reconfiguration command
21 reconfigures the selected machines to payout in accordance with the
22 common jackpot payout schedule. In this case, the reconfiguration
23 message would be queued up for each of the selected machines to be
24 combined in a common jackpot. One example of a common jackpot
25 is a progressive jackpot.
26

1 (Id. at col. 36, ll. 5-13); (Mikohn Br. p. 3 at ¶ 12.)

2 13. Acres alleges Mikohn infringes the following claims of the patents in suit: claim 1 of the
3 '961 patent; claims 1, 2, 10, 11 and 18 of the '882 patent; claims 1, 4, 8, 15, 16 and 18 of the '459
4 patent; and claims 1, 21, 24 and 29 of the '817 patent. Acres alleges CDS infringes the following
5 claims of the patents in suit: claims 10 and 19 of the '882 patent; and claim 22 of the '817 patent.
6

7 14. At issue is the meaning of a number of the terms and phrases in the above claims. Many of
8 the disputed terms and phrases are used in more than one claim. The Court's construction of a term
9 or phrase in a particular claim shall be applied consistently throughout the patents in suit unless
10 otherwise noted.
11

12 II. LEGAL STANDARD

13 15. Two steps are involved in a patent infringement analysis: "the proper construction of the
14 asserted claim and a determination as to whether the accused method or product infringes the
15 asserted claim as properly construed." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-
16 82 (Fed.Cir.1996). Only the first step, claim construction, is before the Court.
17

18 16. The issue of claim construction is a matter of law for the court. *See Markman*, 52 F.3d at
19 979. The purpose of claim construction analysis is to determine the meaning given to each disputed
20 term by a person of ordinary skill in the relevant art. *Haynes Int'l, Inc. v. Jessop Steel Co.*, 8 F.3d
21 1573, 1578 n.4 (Fed.Cir.1993). "[I]n interpreting an asserted claim, the court should look first to
22 the intrinsic evidence of the record, i.e., the patent itself, including the claims, the specification
23 and, if in evidence, the prosecution history." *Vitronics*, 90 F.3d at 1582. The intrinsic evidence
24 "constitute[s] the public record of the patentee's claim, a record on which the public is entitled to
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1 rely." *Id.* at 1583. "Such intrinsic evidence is the most significant source of the legally operative
2 meaning of disputed claim language." *Id.* at 1582. Indeed, "[i]n most situations, an analysis of the
3 intrinsic evidence alone will resolve any ambiguity in a disputed claim term." *Id.* at 1583.

4 17. Construction of a claim, however, begins with the words themselves. *Bell Communications*
5 *Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 619-20 (Fed.Cir.1995). "[T]he
6 language of the claim defines the scope of the protected invention." *Id.* at 619. Words in a claim
7 are generally given their customary and ordinary meaning. *Vitronics*, 90 F.3d at 1582. That is,
8 "a court must presume that the terms in the claim mean what they say, and, unless otherwise
9 compelled, give full effect to the ordinary and accustomed meaning of claim terms." *Johnson*
10 *Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed.Cir.1999). The ordinary meaning
11 of claim terms and phrases cannot be changed by reference to the specification or other intrinsic
12 evidence "unless the *language of the claims invites reference* to those sources." *Id.* at 989-90
13 (emphasis added). Thus, where the language of the claim does not invite reference to other sources,
14 the ordinary meaning of the words used in a claim will prevail and the analysis ends. *See id.* at
15 989-90.

16 18. Thus, it may be "necessary to review the specification to determine whether the inventor has
17 used any terms in a manner inconsistent" with their plain meaning. *Vitronics*, 90 F.3d at 1582.
18 "The specification contains a written description of the invention which must be clear and complete
19 enough to enable those of ordinary skill in the art to make and use it." *Id.* The specification,
20 therefore, is always relevant to the claim construction analysis and usually is dispositive." *Id.* "[I]t
21 is the single best guide to the meaning of a disputed term." *Id.* A patentee, therefore, who invites
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1 reference in the claim language to intrinsic evidence "may choose to be his own lexicographer and
2 use terms in a manner other than their ordinary meaning *as long as the special definition of the term*
3 *is clearly stated in the patent specification or file history.*" *Id.* (emphasis added). "In other words,
4 where the inventor does not clearly explain the adoption of an uncommon or new definition for a
5 claim term, the common meaning of that term to one of ordinary skill in the art controls." *Loral*
6 *Fairchild Corp. v. Victor Co.*, 906 F.Supp. 798, 803 (E.D.N.Y.1995).

7
8 19. A court may also consider the prosecution history of a patent in its claim-construction
9 analysis. *Markman*, 52 F.3d at 980. The prosecution history "contains the complete record of all
10 the proceedings before the Patent and Trademark Office, including any express representations
11 made by the applicant regarding the scope of the claims." *Vitronics*, 90 F.3d at 1582. "As such,
12 the [prosecution history] is often of critical significance in determining the meaning of the claims."
13 *Id.* at 1583.

14
15 20. In those cases where the intrinsic evidence discussed above unambiguously defines a term,
16 "reliance on any extrinsic evidence is improper." *Id.* Thus, only where the intrinsic evidence is
17 insufficient to enable a court to determine the meaning of a disputed term may the court rely on
18 extrinsic evidence to understand the technology and to construe the claims. *Id.* at 1584.
19

20 Extrinsic evidence is that evidence which is external to the patent and
21 file history, such as expert testimony, inventor testimony,
22 dictionaries, and technical treatises and articles. However, ...extrinsic
23 evidence in general, and expert testimony in particular, may be used
24 only to help the court come to the proper understanding of the claims;
25 *it may not be used to vary or contradict the claim language.* Nor
26 may it contradict the import of other parts of the specification.
Indeed, *where the patent documents are unambiguous, expert*
testimony regarding the meaning of a claim is entitled no

1 *weight...Nor may the inventor's subjective intent as to claim scope,*
2 *when unexpressed in the patent documents have any effect.* Such
3 testimony cannot guide the court to a proper interpretation when the
4 patent documents themselves do so clearly.

5 *Id.* (emphasis added) (internal citations omitted).

6 21. "The Federal Circuit has admonished that claims should preferably be interpreted without
7 recourse to extrinsic evidence such as expert testimony, other than perhaps dictionaries or reference
8 books, and that *expert testimony should be received only for the purpose of educating the judge.*"
9 *EMI Group North America, Inc. v. Intel Corp.*, 157 F.3d 887, 892 (Fed.Cir.1998) (emphasis
10 added), *cert. denied*, 119 S.Ct. 1756 (1999). Expert testimony, therefore, "is not to be relied upon
11 for purposes of claim interpretation, other than to aid the judge in understanding the technology."
12 *Id.*(citing *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 n.3, 1455-56 (Fed.Cir.1998) (en
13 banc)).

14 22. As mentioned above, treatises and dictionaries also fall within the category of extrinsic
15 evidence. However, the court is "free to consult such resources at any time in order to better
16 understand the underlying technology and may also rely on dictionary definitions when construing
17 claim terms, so long as the dictionary definition does not contradict any definition found in or
18 ascertained by a reading of the patent documents." *Vitronics*, 90 F.3d. at 1584 n. 6. Thus, federal
19 courts may rely on dictionary definitions to ascertain a term's ordinary meaning so long as it does
20 not contradict a definition that is *clearly stated* in the patent specification or file history. *See, e.g.*,
21 *York Prods., Inc. v. Central Tractor Farm and Family Center*, 99 F.3d 1568, 1572-73
22 (Fed.Cir.1996).

1 23. As previously discussed, this Court's analysis is limited to the proper construction of the
2 terms and phrases that are in dispute. The Court, therefore, will decline to address any issues raised
3 by the parties that touches upon issues of actual infringement. Actual infringement, the second step
4 in infringement analysis, is a question of fact appropriate for resolution by the jury, or on summary
5 judgment where a reasonable fact finder finds no infringement. *See Design-Rite, Inc., v. J. V. Mfg.,*
6 *Inc.*, 29 F.Supp.2d 379 (E.D.Mich.1998).

8 III. ANALYSIS

10 1. "Gaming Device"

11 24. The parties dispute the meaning of the term "gaming device" in claim 1 of the '961 patent,
12 claims 1 and 10 of the '882 patent, claim 1 of the '459 patent, and claims 1, 21, 22 and 24 of the
13 '817 patent. Mikohn and CDS argue that the term "gaming device" means "any device used in
14 gaming." More specifically, they argue that a "gaming device" can be a manually operated table
15 game. Acres argues that the term "gaming device" means "an automatic device that performs at
16 least the three automatic functions of (1) accepting wagers, (2) determining win or loss, and (3)
17 providing for coin-out--i.e., automatically paying any winning amounts." Acres argues that the only
18 table games that would fall within the meaning of "gaming devices" are those that are "fully
19 automated."

21 25. The real crux of the dispute between the parties is whether manually operated table games
22 fall within the meaning of "gaming devices" as that term is used in relation to the patents in suit.
23 The claim language does not shed light on what types of table games are included within the
24 meaning of the term "gaming device." The Court, however, need look no further than the
25
26

1 specification to find the answer. The specification, in pertinent part, reads:

2 The system supports a multiplicity of various gaming devices. The
3 gaming devices 12-16 and 22-26 shown in FIG. 1 are the type having
4 a pull handle for initiating a game, e.g., slot machines. *However, the*
5 *invention is not limited to such gaming devices. The gaming devices*
6 *shown in FIG. 1 can also be gaming tables or push button operated*
7 *machines as well, e.g. video poker. As will be described hereinafter,*
the system supports any gaming device providing traditional discrete
connections, e.g. coins-in, coins-out, etc., as well as those having
serial interfaces, as described below.

8 (961 Pat. at col. 7, ll. 8-17) (emphasis added).

9 26. The specification provides that "gaming tables" are included within the meaning of the term
10 "gaming devices." It does not state that only *certain types* of "gaming tables" meet this definition.
11 The clear import, therefore, is that there are no restrictions on the types of "gaming tables" that
12 meet the definition of a "gaming device." If Acres wanted to limit the types of table games to only
13 those that are "highly automated," it could have done so by inserting appropriate language into the
14 specification, which would have alerted one skilled in the art to the definition it now urges upon this
15 Court. The specification, however, contains no such language.
16

17 27. Moreover, the definition of "gaming devices" set forth in the patent specification is not
18 affected by the sentence in the patent specification stating that "the system supports any gaming
19 device providing traditional discrete connections, e.g., coins-in, coins-out, etc., as well as those
20 having serial interfaces, as described below." First, the sentence includes the phrase "supports any
21 gaming device providing." A sentence cannot define a term if the sentence itself uses the term.
22 Second, as is plain from a fair reading of the sentence, the sentence only describes aspects of
23 "gaming devices" that might be used in practicing the invention -- it does not define the term
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1 "gaming devices." It merely states that the system can use gaming devices "providing traditional
2 discrete connections" or "having serial interfaces." Moreover, that "gaming devices included as
3 part of the invention" will generally have "traditional discrete connections" or "serial interfaces"
4 is addressed by the patent claim in that claim 1 of the '961 patent provides for a "method of
5 operating gaming devices configured to play a preselected game interconnected by a computer
6 network to a host computer..." Obviously, any gaming device used in the patented invention will
7 have to have some means by which it can be "interconnected by a computer network to a host
8 computer." (Mikohn Br. at p. 10.)

10 28. Acres also argues that the term "gaming device" should be defined according to N.R.S. §
11 463.0155, which defines "gaming device" as "any equipment or mechanical, electromechanical or
12 electronic contrivance, component or machine used remotely or directly in connection with gaming
13 or any game which affects the result of a wager by determining win or loss." Nowhere does the
14 specification state that the meaning of the term "gaming device" is governed by that statute, or any
15 other statute. "[A] patentee may choose to be his own lexicographer and use terms in a manner
16 other than their ordinary meaning *as long as the special definition of the term is clearly stated in*
17 *the patent specification or file history.*" *Vitronics*, 90 F.3d at 1582 (emphasis added). The only
18 evidence relied upon by Acres in support of its argument is expert testimony presented at the
19 *Markman* hearing. Because the specification unambiguously includes all types of gaming tables
20 within the meaning of the term "gaming devices," the Court will not consider such extrinsic
21 evidence. Moreover, as CDS points out, the definition given by N.R.S. § 463.0155 to the term
22 "gaming device" actually supports CDS and Mikohn's position because it defines that term to
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1 include "*any equipment...used directly or remotely in connection with gaming...*" Id. (emphasis
2 added). Clearly, a manual table game falls within this definition.

3 29. Finally, Mikohn argues that the "host computer" recited in claim 1 of the '961 patent is a
4 separate and distinct entity from a "gaming device." Acres agrees with Mikohn on this point:
5 "Acres agrees with Mikohn that the "host computer" recited in claim 1 of the '961 patent is not also
6 one of the 'gaming devices' that are separately recited in claim 1." (Acres' Reply Brief Concerning
7 Claim Construction for the '961 and '882 patents (#365) at p. 5.) No additional discussion on this
8 point, therefore, is required.

9 30. Based on the plain language of the specification, the Court agrees with CDS and Mikohn that
10 manual gaming tables are included within the meaning of the term "gaming device." Moreover, the
11 Court finds, based on the plain language of the specification quoted above, that a "gaming device"
12 refers generally to any equipment used in connection with gaming. Finally, the Court agrees with
13 the parties that the "host computer" recited in claim 1 of the '961 patent is not also one of the
14 "gaming devices" that are separately recited in claim 1.

15 2. "Computer" & "Host Computer"

16 31. Mikohn and Acres dispute the meaning of the terms "computer" and "host computer" in
17 claim 1 of the '961 patent. Claim 1 recites:

18
19 A method of operating gaming devices configured to play a
20 preselected game interconnected by a computer network to a host
21 computer comprising:
22 permitting players to play the preselected game at the gaming devices;
23 paying to each device in accordance with a first payout table after
24 each game;
25 monitoring the activity of the gaming devices over the network;
26

1 detecting the amount of money played on the gaming devices;
2 allocating a predetermined percentage of the money played to a bonus
3 pool;
4 determining the level of the bonus pool;
5 activating a bonus payout table in a gaming device after the bonus
6 pool level exceeds a turn-on level;
7 permitting continued play of the preselected game at the gaming
8 devices; and
9 paying the gaming-device in accordance with both payout tables after
10 each game for so long as the bonus payout table remains activated.

11 (961 Pat. at col. 37, l. 63 to col. 38, l. 17.)

12 32. Mikohn argues that the term "computer" should be construed to mean "any kind of device
13 capable of processing information to produce a desired result." In addition, Mikohn argues that the
14 term "host computer" should be construed to mean "a controlling computer in a multiple computer
15 operation." Mikohn relies on the dictionary definitions of those terms in support of its proposed
16 constructions. Acres has no particular quarrel with the various dictionary definitions of the term
17 "computer" offered by Mikohn. (Acres' Reply Brief Concerning Claim Construction for the 961
18 and 882 patents (#365) at p. 5.) Acres does disagree with Mikohn's definition of that term,
19 however, insofar as it relates to the term "host computer." According to Acres, not every device
20 that satisfies the various definitions of "computer" offered by Mikohn could constitute the "host
21 computer." (Id.) Acres argues that, at a minimum, "the host computer must be capable of
22 operating a network of gaming devices to implement the bonusing invention." It is not exactly clear
23 from reading the claim language what attributes the "host computer" must have in order to function
24 according to the claimed invention. Once again, however, the Court need not look far for the
25 answer. Based upon a reading of the specification the Court agrees with Acres' proposed
26

1 construction of the term "host computer."

2 33. All of the asserted claims of the patents in suit specify that a "host computer" is used in the
3 bonusing invention. (See '961 Pat., claim 1; '882 Pat., claims 1, 2, 10, 11, 18, 19; '459 Pat.,
4 claims 1, 4, 8, 15, 16, 18; '817 Pat., claims 1, 21, 22, 24, 29.) The specification describes uses
5 of the host computer in *implementing the bonusing invention*. (See e.g., col. 6, ll. 27-29 ("Remote
6 reconfiguration includes sending a reconfiguration command from a host computer to one or more
7 of the gaming devices")); (col. 8, ll. 38-40 ("The module allows the host computer to uniquely
8 identify the gaming device on the network, including the device type").) The specification also gives
9 examples of the types of devices that may be used as the host computer. (See col. 8, ll. 29-32 ("In
10 fact, because the file server 32 is essentially a virtual hard disk for the floor controllers 18 and 32,
11 the floor controllers and the file server can be considered a single host computer for the system
12 10")); (Acres Br. at p. 70.)

13 34. Clearly, the functions of the "host computer" described in the specification are more
14 sophisticated than Mikohn's broad definition of "any kind of device capable of processing
15 information to produce a desired result." A plain reading of the specification would alert one
16 skilled in the art that the "host computer" described in the patent must be capable of operating a
17 network of gaming devices to implement the bonusing invention. Because the specification is clear,
18 the Court need not consider the extrinsic evidence offered by Mikohn.

19 35. The Court, therefore, construes the term "host computer" consistent with Acres' proposed
20 construction: a computer having the ability to communicate via a network with the gaming devices
21 to implement the bonusing inventions.
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3. "Bonus Payout Table"

36. Mikohn and Acres dispute the meaning of the term "bonus payout table" in claim 1 of the '961 patent. Mikohn argues that the term "bonus payout table" means "a table that associates specific bonus payouts with specific winning combinations on a gaming device." Acres argues that Mikohn's construction of the term "bonus payout table" improperly limits the meaning of the term "to just one of a number of different ways of accomplishing a 'bonus payout table.'" According to Acres, the term "bonus payout table" means "a system for determining the amount and timing or conditions precedent to a bonus payment."

37. The term "bonus payout table" is not defined in claim 1 of the '961 patent. The Court, therefore, must look to intrinsic evidence for guidance. In the specification, the term "bonus payout table" appears in only one place. Under the heading "Serial Machine Interface," the specification uses the term "bonus payout table" in describing how a data communication node ("DCN") controller communicates reconfiguration commands to a machine. The specification provides, in relevant part:

The serial machine interface is the means by which the DCN controller communicates certain reconfiguration data, referred to as reconfiguration commands to the machine. These reconfiguration commands cause the machines to activate a *bonus payout table* to allow the machine to append bonus payments to their standard jackpot payouts, as specified by their payout table, during certain bonus activities.

('961 Pat. at col. 9, ll. 60-67) (emphasis added). As can be seen from the above-quoted language, the specification does not define the term "bonus payout table;" rather, it merely states what the bonus payout table accomplishes once it is activated by a reconfiguration command. The Court,

1 therefore, must construe the term "bonus payout table" according to its ordinary meaning. *York*
2 *Products*, 99 F.3d at 1572 (Fed.Cir.1996) ("Without an express intent to impart a novel meaning
3 to claim terms, an inventor's claim terms take on their ordinary meaning"). The Court is permitted
4 to review dictionary definitions to determine the ordinary meaning of the term "bonus payout table."
5
6 *See, e.g., id.*

7 38. The term "table" is defined in the ILLUSTRATED DICTIONARY OF
8 MICROCOMPUTERS, Third edition (1990), p. 387 as "[a] graphically arranged collection of data
9 in which each item is uniquely identified by a label or position relative to other items. The items
10 are usually laid out in rows and columns for reference or stored in memory as an array." The term
11 is defined in the MICROSOFT COMPUTER DICTIONARY, Fourth edition (1999), p. 434 as
12 follows:
13

14 In programming, a data structure usually consisting of a list of
15 entries, each entry being identified by a unique key and containing a
16 set of related values. A table is often implemented as an array of
17 records, a linked list, or (in more primitive languages) several arrays
of different data types, all using a common indexing scheme.

18 The OXFORD DICTIONARY OF COMPUTING, Fourth edition (1997), p. 493, provides the
19 following definition of the term "table":

20 A collection of records. Each record may store information
21 associated with a key by which specific records are found, or the
22 records may be arranged in an array so that the index is the key. In
23 commercial applications the word table is often used as a synonym
for matrix or array.

24 Based on these definitions, the Court agrees with Mikohn that the term "table" means "a collection
25 of data in which each item is uniquely identified by a label or position relative to other items."
26

1 (Mikohn Br. at p. 17.)

2 39. Mikohn contends that the term "payout table" is a term of art that means "a table in a gaming
3 device that is referenced in order to determine the appropriate payout for a particular winning
4 combination." Acres argues that the term means "anything that associates a specific game outcome
5 with a specific award amount." Because this term cannot be readily defined by the intrinsic
6 evidence, the Court is permitted to rely on the prior art proffered by Mikohn in construing this
7 term:
8

9 [A] court in its discretion may admit and rely on prior art proffered
10 by one of the parties, *whether or not cited in the specification or the*
11 *file history*. This prior art can often help to demonstrate how a
12 disputed term is used by those skilled in the art. Such art may make
13 it unnecessary to rely on expert testimony and may save much trial
14 time. As compared to expert testimony, which often only indicates
15 what a particular expert believes a term means, prior art references
16 may also be more indicative of what all those skilled in the art
17 generally believe a certain term means.

18 *Vitronics*, 90 F.3d at 1584 (emphasis added).

19 40. The definition of a "payout table" as a table that relates payout to game outcome is
20 repeatedly and consistently used in relevant literature. (See, e.g., U.S. Patent No. 5,019,973, filed
21 March 8, 1989, to *Wilcox et al.* ("The game is won or lost when the card hand as configured is
22 compared to the *ranking of card hands* on the *payout table*, which also determines the amount of
23 the payout, if any")(emphasis added)(Exh. 8 at Abstract, ll. 12-15))⁵; (U.S. Patent No. 5,255,915,
24 filed October 23, 1991, to *Miller* ("The method comprises first providing a *payout table* defining

25 ⁵ All exhibits cited in this paragraph can be found in Mikohn Gaming Corporation's Extrinsic Evidence
26 Filed in Support of its Proposed Claim Constructions (#355).

1 a predetermined set of *winning hands* of different ranks and payout values selected from a single
2 deck of cards, each card having a different face value and suit, with at least some of the winning
3 hands being combinations of six cards, with the remaining hands from the deck not included within
4 the predetermined set of winning hands not having any payout value") (emphasis added) (Exh. 9 at
5 col.1, l. 64 to col. 2, l. 4)); (U.S. Patent No. 5,356,140, filed April 14, 1993, to *Dabrowski et al.*
6 ("After the draw has occurred, the player is paid an amount based on the number of coins wagered
7 and reflecting whatever *winning combination* he has achieved according to the *payout table* at the
8 top of the display screen") (emphasis added) (Exh. 10 at col.5, ll. 35-39)); (U.S. Patent No.
9 5,401,024, filed May 9, 1994, to *Simunek* ("A typical *payout table* for use with this embodiment
10 is listed below wherein each video reel contains three characters, namely a "7," a bar and a cherry.
11 The player is paid a certain amount per character obtained after the reels are spun, the amount
12 increasing for increasing numbers of matched spots") (emphasis added) (Exh. 11 at col. 4, ll. 1-6));
13 (U.S. Patent No. 5,449,173, filed September 26, 1994, to *Thomas et al.* ("Based on the *number*
14 *selected*, a *payout table*, stored in the ROM memory 34 (FIG.3), is consulted to determine how
15 many additional coins are to be paid out")(emphasis added)(Exh.12 at col. 3, ll. 51-53)); (U.S.
16 Patent No. 5,489,101, filed June 6, 1995, to *Moody* ("A *payout table* is provided that pays the
17 player various multiples of his wager depending on the *rank of poker hand* that the player
18 achieves")(emphasis added)(Exh. 13 at col. 2, ll. 26-28)); (U.S. Patent No. 5,531,440, filed
19 September 29, 1994, to *Dabrowski et al.* ("A *payout table* is established based on the number of
20 coins or tokens wagered by the player and the *type of poker hand achieved*"(emphasis added)(Exh.
21 13 at col. 1, ll. 38-41)); (Mikohn Br. at p. 18.)
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1 41. The language cited in the above-referenced patents buttresses Mikohn's argument that to one
2 skilled in the art, the term "payout table" means "a table in a gaming device that is referenced in
3 order to determine the appropriate payout for a particular winning combination." Acres, however,
4 points to the mystery jackpot promotion as evidence that a "winning combination" is not necessary
5 to the payment of a bonus. It is true, as previously discussed, that the mystery jackpot promotion
6 is not based on game outcome. However, there is nothing in the patent or prosecution history that
7 states or even suggests that a *bonus payout table* includes a mechanism for paying a mystery
8 jackpot. The Court, therefore, will adopt Mikohn's construction of that term without consideration
9 of the expert testimony offered by Acres in support of its proposed construction.
10

11
12 42. With the terms "table" and "payout table" now defined, the Court looks again to the
13 specification to determine the meaning of the term "bonus payout table." In pertinent part, the
14 specification reads: "These reconfiguration commands cause the machines to *activate a bonus payout*
15 *table to allow the machine to append bonus payments to their standard jackpot payouts, as specified*
16 *by their payout table, during certain bonus activities.*" ('961 Pat. at col. 9, ll. 60-67) (emphasis
17 added). Based on a plain reading of the specification, the Court agrees with Mikohn that a "bonus
18 payout table" is a table that associates specific bonus payouts with specific winning combinations
19 on a gaming device.
20

21 43. This construction of the term "bonus payout table" is confirmed by the prosecution history.
22 In response to an office action wherein Acres sought to overcome a prior art rejection of claim 1
23 (which was originally claim 55), Acres stated as follows:
24

25 [T]he method of the present invention now includes the limitation of
26

1 paying to each gaming device based on a first payout table and paying
2 based on both payout tables after the bonus payout table is activated.
3 Thus, *winning combinations* occurring multiple times at single
4 preselected device are paid based on both payout tables after the
5 bonus payout table is activated.

6 (Mikohn's Proposed Claim Construction for U.S. Patent No. 5,655,961(#351), Ex. 4 at p. 11)
7 (emphasis added). Claims may not be construed one way in order to obtain their allowance and then
8 in a different way against an accused infringer. "[T]he prosecution history (or file wrapper) limits
9 the interpretation of the claims so as to exclude any interpretation that may have been disclaimed
10 or disavowed during prosecution in order to obtain claim allowance." *Standard Oil Co. v. American*
11 *Cyanamid Co*, 774 F.2d 448, 452 (Fed.Cir.1985). "Other players in the marketplace are entitled
12 to rely on the record made in the Patent Office in determining the meaning and scope of the patent."
13 *Lemelson v. General Mills, Inc.*, 968 F.2d 1202, 1208 (Fed.Cir.1992), *cert denied*, 506 U.S. 1053
14 (1993); (Mikohn Br. at p. 21.)

15 44. Moreover, the one and only example of a "bonus payout table" given by the '961 patent
16 specification is a collection of payout values stored as an array. The '961 patent specification states:
17

18 In another embodiment of the bonus time promotion, a bonus amount
19 is awarded in addition to the payout according to the default of the
20 payout schedule of the machine. The *amount of the bonus jackpot* is
21 specified in subfield (E) of the bonus time data. For example, this
22 bonus time promotion might *include five bonus amounts of \$10, \$25,*
23 *\$50, \$100 and \$500*, which is specified by subfield (E). *When a*
24 *player hits a particular jackpot, whichever bonus amount is specified*
25 *by the bonus amount subfield this amount is automatically paid out in*
26 *addition to the payout amount determined by the machine's default*
payout schedule.

27 ('961 Pat. at col. 26, ll. 10-21)(emphasis added); (Mikohn Br. at p. 22.) Thus, the '961 patent

1 specification, and the arguments made by Acres to the Patent Office in order to obtain issuance of
2 claim 1, provide further support for the definition of "bonus payout table" proposed by Mikohn.

3 45. Acres argues, however, that the specification uses the term "bonus payout table" and "bonus
4 payout schedule" interchangeably and that, therefore, the term "bonus payout table" should be
5 accorded the broader definition of a "bonus payout schedule." Acres relies on expert testimony in
6 support of its argument. Nevertheless, as Mikohn points out, the specification does not accord the
7 same meaning to "payout table" and "payout schedule." For example, the specification repeatedly
8 states that a "reconfiguration command" reconfigures a gaming device's "payout schedule" while
9 it acknowledges, at the same time, that it cannot reconfigure the gaming device's "payout table."
10 (Compare '961 Pat. at col. 20, ll. 2-4 ("Upon receipt of the reconfiguration command, the gaming
11 device reconfigures its payout schedule") with col. 6, ll. 43 ("The preferred embodiment currently
12 activates only the bonus payout schedule responsive to the reconfiguration command, while not
13 altering the payout table).) Clearly, in the context of the '961 patent, "payout table" and "payout
14 schedules" are accorded different meanings.

15 46. Based on the foregoing, the Court construes the term "bonus payout table" to mean a table,
16 as that term has been previously defined, that associates specific bonus payouts with specific
17 winning combinations on a gaming device.

21 4. "Activating a Bonus Payout Table in a Gaming Device"

22 47. Mikohn and Acres dispute the meaning of the phrase "activating a bonus payout table in a
23 gaming device" in claim 1 of the '961 patent. Mikohn argues that to "activate" the bonus payout
24 table means "to enable the bonus payout table such that it is referenced each time the gaming device
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1 is played by the player." In addition, Mikohn argues that the "bonus payout table" must "remain
2 activated on the same gaming device for more than one game." Acres argues that the phrase means
3 "taking an action that permits one or more bonus awards to be paid in accordance with the bonus
4 payout table if specified conditions are met." According to Acres, there is no requirement that the
5 bonus payout table be referenced each time a gaming device is played.
6

7 48. Mikohn relies primarily on the testimony of its expert in support of its argument that the
8 payout table must be referenced each and every time a gaming device is played. As-Acres points
9 out, however, the specification, although supporting such a construction, contains no language that
10 would limit it solely to this narrow construction. Mikohn's proposed construction would run
11 contrary to the general rule "that the claims of a patent are not limited to the preferred embodiment,
12 unless by their own language." See *Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, 177 F.3d
13 968, 973 (Fed.Cir.1999). The Court, therefore, will not read into the patent a requirement that is
14 not supported by the intrinsic evidence.
15

16 49. The Court does agree, however, with Mikohn insofar as it argues that the bonus payout table
17 must remain activated for more than one game. Although the claim language and specification is
18 unclear on this point, the prosecution history supports such a conclusion. In order to overcome a
19 prior art rejection, Acres added the limitations "permitting continued play of the preselected game
20 at the gaming devices" and "paying the gaming-device in accordance with both payout tables after
21 each game for so long as the bonus payout table remains activated." In the response to the office
22 action wherein these new limitations were added, Acres stated:
23
24

25 [W]hen a bonus payout table is activated in accordance with the
26

1 method of the present invention, *the game being played at each*
2 *gaming device continues; there is no cessation of games in progress*
3 nor is a different game initiated when the game in progress is
4 complete. Rather, play continues as before at the gaming devices.
5 In addition, the method of the present invention now includes the
6 limitation of *paying to each gaming device* based on a first payout
7 table and paying based on both payout tables after the bonus payout
8 table is activated

9 (Mikohn's Proposed Claim Construction for the '961 patent, Ex. 4 at p. 11) (emphasis added);
10 (Mikohn Br. at p. 24.) Based upon this clear evidence, the Court declines to consider the expert
11 testimony offered by Acres in support of its argument to the contrary.

12 50. Acres' argument that the phrase "activating a bonus payout table" means "taking an action
13 that permits one or more bonus awards to be paid in accordance with the bonus payout table if
14 specified conditions are met" will be rejected on the same grounds the Court rejected Acres'
15 proposed construction of the term "bonus payout table." As discussed earlier, the Court construed
16 that term as meaning that bonuses are paid based upon specific winning combinations. The Court,
17 therefore, will not address this point further.

18 51. Finally, Mikohn makes additional arguments regarding the construction of the phrase
19 "activating a bonus payout table" that were not addressed by Acres. First, Mikohn argues that the
20 bonus payout table must exist on the gaming device prior to its being "activated." Claim 1 of the
21 '961 patent describes "activating a bonus payout table *in* a gaming device after the bonus pool level
22 exceeds a turn on level." (961 Pat. at col. 38, ll. 11-12.) The clear import of that sentence is that
23 the bonus payout table is already existing in the gaming device prior to being "activated." The
24 Court, therefore, agrees with Mikohn on this point. Second, Mikohn argues that the "gaming
25
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1 device" referred to in the claim element "activating a bonus payout table in a gaming device" is one
2 of the gaming devices playing a preselected game interconnected to the host computer. Support for
3 Mikohn's argument is found in the preamble to claim 1 which claims "[a] method of operating
4 gaming devices configured to play a preselected game interconnected by a computer network to a
5 host computer..." (Id. at col. 37, ll. 62-65.) The Court, therefore, agrees with Mikohn on this
6 additional point.
7

8 5. "Preselecting Less Than All"

9 52. The parties dispute the meaning of the phrase "preselecting less than all" in claims 1 and 10
10 of the '882 patent and claim 1 of the '459 patent. The parties agree that the phrase should be
11 construed consistently throughout the patents in suit. The parties cite primarily to claim 1 of the
12 '459 patent in their briefs. That claim recites:
13

14 A system for operating a plurality of gaming devices, the system
15 comprising:
16 a host computer, said host computer including means for generating
17 a reconfiguration command;
18 a user-operated input device connected to said host computer;
19 a network interconnecting the gaming devices to the host computer;
20 *means for preselecting less than all of the gaming devices*
21 *interconnected to the host computer responsive to user-effected action*
22 *at said input device;*
23 means within the computer for transmitting the reconfiguration
24 command to one of the preselected gaming devices;
25 means within each gaming device for receiving the reconfiguration
26 command transmitted to the gaming device; and
27 means within each gaming device for reconfiguring the gaming device
28 responsive to the received reconfiguration command, wherein the
29 gaming device pays a bonus in accordance with the received
30 reconfiguration command.

31 ('459 Pat. at col. 37, l. 60 to col. 38, l. 14) (emphasis added).

1 53. Mikohn argues that the phrase "preselecting less than all" means "the capability of the casino
2 to pick out the machines that will be used in a given promotion." CDS argues that the phrase means
3 "selecting, i.e., determining which of the interconnected gaming devices will participate in the
4 method being claimed." Acres argues the phrase should be construed to mean "that some, but not
5 all, of the gaming devices are associated together."
6

7 54. The term "preselecting" is not used in the specification. Instead, the specification repeatedly
8 uses the term "select." The dictionary definition of "select" is "to pick out from among several"
9 or to single "out in preference." WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY
10 (1984), p. 1057. The dictionary definition of "preselecting" is "to select beforehand."
11 WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (1986), p. 1793. No language in
12 the specification contravenes the plain meaning of those terms as defined above. Reading the plain
13 meaning of those terms into the phrase "preselecting less than all of the gaming devices" leads to
14 the construction of that phrase as follows: to pick out beforehand from among the gaming devices
15 some, but not all, of the gaming devices to participate in the method being claimed.
16
17

18 55. Mikohn and Acres further dispute whether the "preselecting less than all" step is separate
19 and distinct from the step of determining whether a particular player's activities on a gaming device
20 have met certain preselected eligibility criteria. Acres argues that the specification does not require
21 such a distinction and that the "preselecting less than all" function is satisfied by the step of
22 determining whether a player's activities on a gaming device meet certain preselected eligibility
23 criteria. Mikohn argues that the two steps are separate and distinct and that, therefore, the step of
24 determining eligibility does not satisfy the "preselecting less than all" function. According to
25
26

1 Mikohn, the function of "preselecting less than all" must occur before the bonus eligibility criteria
2 is set. Based upon a review of the specification and prosecution history, the Court agrees with
3 Mikohn.

4
5 56. The specification describes the following system for operating networked gaming devices:

6 A system for operating networked gaming devices is described. The
7 system according to the invention allows a casino in which the system
8 is installed to run promotions or bonuses on any properly equipped
9 gaming machines while simultaneously gathering player and tracking
10 and accounting data from all machines.

11 ('961 Pat. at col. 2, ll. 45-50); (Mikohn Br. at p. 27.)

12 57. The system allows the *casino operator* to "select" which gaming devices to link to a specific
13 promotion: "The system provides the capability for *the casino to select* which of the plurality of
14 machines are used in any given promotion. The system further allows any number of different
15 promotions to operate simultaneously." ('961 Pat. at col., ll. 50-53) (emphasis added); (Mikohn
16 Br. at p. 27.)

17 58. It is, *after* the casino has selected "which of the plurality of machines" are to be used in a
18 specific promotion, that the system sends a "reconfiguration command" to the selected gaming
19 devices:

20 Each promotion involves sending a reconfiguration command from
21 the floor controller to a gaming device *that has been selected* to be
22 part of a given promotion over the associated network. Upon receipt
23 of the reconfiguration command, the gaming device reconfigures its
24 payout schedule in accordance with the received reconfiguration
25 command.

26 ('961 Pat. at col. 2, ll. 61-67) (emphasis added); (Mikohn Br. at p. 28.)

1 59. As the specification makes plain, it is this "reconfiguration command" that sets the bonusing
2 eligibility criteria in each of the gaming devices. The specification defines a "reconfiguration
3 command" as a command sent the gaming device that contains "reconfiguration data." The
4 specification states:

5
6 The first step of processing this type of message is for the DCN to
7 determine what type of data is included in the message. [T]here are
8 three types of data that can be included in this message type: *a*
9 *reconfiguration command*, card data, or other minor data. The DCN
10 makes this determination...by analyzing one of the bytes in the data -
11 packet of the message. This byte will be referred to herein as the
12 command byte. *If the command byte indicates that the message*
13 *contains reconfiguration data, i.e., the command byte equals a*
14 *reconfiguration command, the DCN stores the reconfiguration data*
15 *in a predefined data structure in memory.*

16 ('961 Pat. at col. 25, ll. 12-23) (emphasis added); (Mikohn Br. at p. 28.)

17 60. The preferred "reconfiguration data structure" has three basic fields: (1) bonus type field;
18 (2) mystery jackpot data field; and (3) bonus time data field. ('961 Pat. at col. 25, ll. 25-47.) The
19 "bonus time data" field includes a subfield (D) specifying "Minimum Activity Level." (Id. at col.
20 25, l. 37 and at col. 26, ll. 1-10.) The specification expressly provides that this subfield "can be
21 used to specify the minimum activity level required by the player in order to be eligible for the
22 bonus time jackpot." (Id. at col. 26, ll. 3-5.) Given that in the preferred embodiment of the patent
23 a gaming device must be "selected" for participation in a given promotion *before* a "reconfiguration
24 command" is sent to that device, it is clear that determining whether a player has met predefined
25 eligibility criteria cannot be and is not the same as "preselecting less than all" the gaming devices.
26 See *Vitronics*, 90 F.3d at 1583-84 (noting that claim interpretations excluding the preferred

embodiment are heavily disfavored).

61. Moreover, the plain language of claim 1 of the '459 patent further demonstrates that the reconfiguration command is sent to a gaming device only after the gaming device has been selected. One of the limitations set forth in claim 1 is: "means within the computer for transmitting the reconfiguration command to one of the *preselected* gaming devices." ('459 Pat. at col. 38, ll. 4-6) (emphasis added). The clear import of this language is that the reconfiguration command is transmitted to a gaming machine that has already been *preselected*, which means that the preselection *precedes* the reconfiguration step. (Mikohn Br. at p. 29.)

62. Additional support for Mikohn's position is found in the specification. As already mentioned, while the term "preselecting" is not found in the specification, Acres makes frequent use of the terms "select" and "selected" in describing its purported invention. Dispositively, Acres' *only* use of those terms is to describe a *casino's* picking particular gaming machines to be *later reconfigured* for bonus play. (See '961 Pat. at col. 2, ll. 50-52 ("The system provides the capability for *the casino to select* which of the plurality of machines are used in any given promotion") (emphasis added)); (col. 2, ll. 61-64 ("Each promotion involves sending a reconfiguration command from the floor controller to a gaming device *that has been selected* to be part of a given promotion over the associated network")(emphasis added)); (col. 18, ll. 63-65 ("In addition, the floor controller is responsible for *transmitting a reconfiguration command to a selected one or more of the gaming devices* during certain bonus conditions") (emphasis added)); (col. 19, ll. 61-63 ("The system provides the capability for the *casino to select* which of the plurality of machines are used in any given promotion") (emphasis added)); (col. 19, l. 66 to col. 20, l. 2 ("Each promotion

1 involves sending a reconfiguration command from the floor controller to a gaming device *that has*
2 *been selected* to be part of a given promotion over the associated network")(emphasis added)); col.
3 36, ll. 5-12 ("Another reconfiguration command allows any number of machines on the network
4 to be combined in a common jackpot having a common jackpot payout schedule, wherein the
5 reconfiguration command *reconfigures the selected machines* to payout in accordance with the
6 common jackpot payout schedule. In this case, the *reconfiguration message would be queued up*
7 *for each of the selected machines* to be combined in a common jackpot")(emphasis added). In
8 contrast, where discussing reconfiguration commands that set standards for minimum play at the
9 "gaming devices," the patent specification discusses "conditions under which the *player* is eligible
10 for this bonus time jackpot award." (Id. at col. 26, ll. 8-10) (emphasis added). Clearly, player
11 eligibility is a completely different concept from "preselecting less than all of the gaming devices."
12 Further, nowhere in the patent specification is it stated or implied that a casino operator can change
13 player eligibility standards with a user-effected action at the input device of a host computer.
14 (Mikohn Br. at p. 29.)

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18 63. Moreover, the prosecution history of the '459 patent provides further support for Mikohn's
19 argument. The original patent application upon which the '459 patent is based was filed with the
20 U.S. Patent Office on October 12, 1994. It included 61 claims. A discrete group of those claims
21 was specifically directed to "selecting" gaming devices for purposes of sending a reconfiguration
22 command. A second discrete group of claims was specifically directed to "determining" whether
23 a-particular player satisfied specified eligibility criteria. As is plain from a comparison of these
24 original claims, Acres was using the term "selecting" to mean something entirely different than the
25
26

1 term "determining." (*Compare* original claims 1, 9, 10 (using the term "selecting") with (original
2 claims 24, 26, 27 (using the term "determining") at Mikohn's Proposed Claim Construction for the
3 '459 patent (#350), Ex. 1 at pp. 71-76.)

4
5 64. Finally, CDS and Acres argue over whether the gaming devices that are *not preselected*
6 continue to function as stand-alone games. CDS argues that no such requirement for "preselection"
7 is stated by the claim language or the specification. Acres argues, however, that one skilled in the
8 art would understand that a gaming device that is not preselected to participate in a bonusing
9 promotion may still function as either a stand-alone game or as a member of other preselected
10 groups of linked games. The Court agrees with CDS that neither the claim language nor the
11 specification state this as a requirement for "preselection." Accordingly, the Court will not graft
12 onto the claim the extra limitation for "preselection" offered by Acres.
13

14 6. "Responsive to User-Effectuated Action"

15 65. Mikohn and Acres also dispute the meaning of the phrase "responsive to user-effectuated
16 action" in claims 1 and 10 of the '882 patent and claim 1 of the '459 patent. Claim 1 of the '459
17 patent, for example, reads in relevant part: "means for preselecting less than all of the gaming
18 devices interconnected to the host computer responsive to user-effectuated action at said input device."
19 ('459 Pat. at col. 38, ll. 1-3.) The parties agree generally that the claims involve a casino operator
20 at the host computer who selects gaming devices by typing in the address of each selected gaming
21 device. Mikohn, relying on the meaning of the term "responsive," argues that the phrase also
22 means that the act of preselection must be an *immediate and direct result* of the user-effectuated action.
23 Acres argues that nothing in the specification or the claims of the patents in suit would convey to
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1 a person skilled in the art the meaning Mikohn proposes. Acres argues that one skilled in the art
2 would understand that "responsive" simply conveys the concept of "in response to," without any
3 limitation on the timing of the response and without any requirement that the preselection be
4 responsive solely to the entering of data by the casino.

5
6 66. Nothing in the claim language indicates that the term "responsive" should be read contrary
7 to its ordinary meaning. The ordinary meaning of the term "responsive" simply means "in response
8 to." The term "response" simply means something done in "answer" to, a "reply" or a "reaction."
9 WEBSTER'S NEW WORLD DICTIONARY, Second edition (1972), p. 1211. The ordinary
10 meaning of the term "response" or "responsive" *does not include within its definition any time limit*
11 *requirement*. Mikohn provides no evidence supporting its claim that the act of "preselection" must
12 be a *direct and immediate* result of the entering of data by the casino. The Court, therefore, will
13 not alter the plain meaning the term "responsive" to include a time limitation requirement.
14

15 7. "Reconfiguration Command"

16
17 67. Mikohn and Acres dispute the meaning of the term "reconfiguration command" in claim 1
18 of the '459 patent. The full text of that claim is set forth above. The claim describes, in pertinent
19 part, a system in which a "reconfiguration command" is sent to a preselected gaming device which,
20 upon receiving the "reconfiguration command," reconfigures the gaming device, causing the gaming
21 device to pay a bonus in accordance with the received "reconfiguration command." ('459 Pat. at
22 col. 37, l. 60 to col. 38, l. 14.) The parties appear to agree on the general definition of
23 "reconfiguration command." Mikohn argues, based upon the plain meaning of "configure," that
24 a "reconfiguration command" is a command that rearranges the previous configuration of the
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1 gaming device. Acres, in not so different words, contends that a "reconfiguration command" is a
2 command that causes a gaming device to be reconfigured. The Court agrees with these general
3 definitions and, in the interest of clarity, will adopt the general construction of that term as proposed
4 by Mikohn: a command that rearranges the previous configuration of the gaming device. However,
5 the dispute does not end here.
6

7 68. The crux of the dispute between Mikohn and Acres is whether a "pay command" is a
8 "reconfiguration command" as described by the patent. Mikohn argues that a simple "pay
9 command," which causes a gaming device to pay a specified amount, cannot be included within the
10 definition of a "reconfiguration command" because "pay commands" do not reconfigure the gaming
11 device to which it is sent. Acres argues that the specification expressly defines "reconfiguration
12 commands" to include "pay commands." In particular, the parties dispute whether one skilled in
13 the art would understand that the reconfiguration commands listed in Table 1 of the specification
14 are types of pay commands. Table 1 reads as follows:
15

16 Table 1-Examples of Reconfiguration Commands

- 17 1. Bonus Pay From Hopper (Coin Format)
- 18 2. Bonus Pay to Credit Meter (Coin Format)
- 19 3. Bonus Pay from Hopper (Dollar Format)
- 20 4. Bonus Pay To Credit Meter (Dollar Format)
- 21 5. Add Non-cash outable credits to Game
- 22 6. Begin Double Jackpot Time
- 23 7. Stop Double Jackpot Time

24 ('961 Pat. at col. 23, ll. 36-45.)

25 69. Acres, relying on the testimony of its expert, argues that one skilled in the art would
26 understand the above examples to be types of pay commands. Mikohn's expert disagrees, stating

1 that "pay commands" are never referred to as "reconfiguration commands." However, the Court
2 need not rely on the testimony of these experts.

3 70. In response to an office action wherein Acres sought to overcome an obviousness rejection
4 for claim 1 (which was originally claim 28), Acres stated as follows:
5

6 Claim 28 is also amended to further define the means within the
7 gaming device for reconfiguring the gaming device as causing the
8 gaming device to pay a bonus. This makes clear that the
9 reconfiguration relates to a bonus award *over and above any regular*
10 *jackpot awarded* by the regulated schedule in the gaming device. -
11 *This distinguishes from Tracy in which [a] single gaming machine*
12 *responds to payout and control signal information from a progressive*
13 *controller dedicated to a bank of machines by making a required*
14 *payout of a progressive jackpot after a jackpot is detected at the*
15 *gaming device.*

16 (CDS Post Hearing Appendix, Volume 2 at Ex. ZZ, pp. 217-18) (emphasis added). It is clear from
17 the above history that Acres was using the term "reconfiguring" to mean changing the mode of the
18 gaming device to pay out extra money it would not have paid in its previous standard jackpot mode.
19 In other words, Acres was distinguishing "reconfiguration commands," which changes the mode
20 of the gaming device to cause the payment of a bonus, from standard "pay commands," which cause
21 the payment of standard jackpots. The Court, therefore, agrees with Mikohn that simple "pay
22 commands" are not "reconfiguration commands."

23 71. In addition, the Court finds that the general definition given to the term "reconfiguration
24 command" above should be narrowed in light of the prosecution history and plain language of the
25 claim itself. The Court, therefore, adopts the following construction of the term "reconfiguration
26 command": a command that rearranges the previous configuration of the gaming device so that the

1 gaming device pays out extra money it would not have paid in its previous configuration.

2 8. "Command"

3 72. The parties dispute the meaning of the term "command" in claims 1 and 10 of the '882 patent
4 and claims 1, 21, 22 and 24 of the '817 patent. CDS and Mikohn argue that the term "command"
5 always refers to "reconfiguration commands." Acres argues that nothing in the claims requires that
6 the claimed "command" must necessarily be a reconfiguration command. According to Acres, a
7 reconfiguration command is just one of many commands and messages described in the patent.

8 73. As discussed above, the Court construes the term "reconfiguration command" to mean a
9 command that rearranges the previous configuration of the gaming device so that the gaming device
10 pays out extra money, i.e. a bonus, it would not have paid in its previous configuration. The issue
11 presented here is whether the term "command," as that term *appears in the claims in dispute*, means
12 a "reconfiguration command." A plain reading of the *claim language* reveals that it does. (See '882
13 Pat. at col. 38, ll. 8-24 (Claim 1 describing method in which command is issued over the network
14 to preselected gaming devices in response to initiation of the bonus play period and "paying a bonus
15 at each of said preselected gaming devices in accordance with the command"); at col. 39 at 9-26
16 (Claim 10 describing method in which command is issued over the network "to one of preselected
17 gaming devices responsive to a predetermined event; and paying at said one gaming device in
18 accordance with the command"); '817 Pat. at col. 38, ll. 27-47 (Claim 1 describing method in
19 which command is issued over the network and paying a bonus in response to receiving a pay
20 command); at col. 40, ll. 33-49 (Claim 21 describing method in which command is issued over the
21 network to cause a bonus to be paid upon the occurrence of a predetermined event and "paying the
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1 bonus via the gaming device responsive to receipt of the pay command"); at col.40, ll. 50-62 (Claim
2 22 describing method in which a command is issued over the network to cause a bonus to be paid
3 upon the occurrence of a predetermined event); at col. 41, l. 13 to col. 42, l. 8) (Claim 24
4 describing method in which a pay command is issued to the gaming device upon the occurrence of
5 the predetermined event and "paying the bonus via the gaming device responsive to receipt of the
6 pay command").) "[A] court must presume that the terms in the claim mean what they say" unless
7 the "language of the claims invites reference to" other sources. *Johnson Worldwide*, 175 F.3d at
8 989-90. Here, the claims in dispute clearly use the term "command" to mean a "reconfiguration
9 command" and, therefore, do not invite reference to the specification or any other source.
10 Accordingly, the Court will construe the term "command" as it is plainly used in the claims
11 themselves: a command, as that term is used in claims 1 and 10 of the '882 patent and claims 1, 21,
12 22 and 24 of the '817 patent, means a reconfiguration command.

13 9. "Data Establishing Criteria"

14 74. Mikohn and Acres dispute the meaning of the phrase "data establishing criteria" in claims
15 1, 21 and 24 of the '817 patent. The parties seek uniform construction of this phrase throughout
16 the three claims. In claim 1 of the '817 patent, for example, the claim describes "issuing a
17 command over the network *including data establishing criteria* to cause a bonus to be paid from the
18 pool via one of said selected gaming devices upon the occurrence of a predetermined event." ('817
19 Pat. at col. 38, ll. 34-37) (emphasis added). The crux of the dispute between the parties is over the
20 term "criteria." While both parties agree that the phrase "data establishing criteria" refers to
21 information that sets up standards, rules or tests to determine whether a bonus is paid, Acres argues
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1 that the phrase may also refer to *one rule or standard*. Mikohn disagrees, arguing that "criteria,"
2 by its ordinary meaning, is plural for the term "criterion." Acres contends, however, that one
3 skilled in the art would understand that the term "criteria" is widely used in the singular form.

4
5 75. The general rule is "that terms in the claim are to be given their ordinary and accustomed
6 meaning." *Johnson Worldwide*, 175 F.3d at 989. In other words, "a court must presume that the
7 terms in the claim mean what they say..." *Id.* Only when a term used in a claim invites reference
8 to other sources for clarification should a court look beyond the claim language to seek a definition
9 other than its plain meaning. *Id.* at 989-90. Here, Acres chose to use the term "criteria" instead
10 of the singular "criterion" in describing claims 1, 21 and 24 of the '817 patent. The ordinary use
11 of the term "criteria" is in the plural. Because the claim language is clear, the Court need not look
12 to other sources to define this term.
13

14 10. "Associating Each Gaming Device with a Unique Address Code"

15 76. CDS and Acres dispute the meaning of the phrase "associating each gaming device with a
16 unique address code" in claim 10 of the '882 patent. The full text of that claim is set forth above.
17
18 In pertinent part, that claim describes:

19 A method of operating gaming devices interconnected by a host
20 computer having a user-operated input device comprising:
21 associating each gaming device with a *unique address code*;
22 preselecting less than all of the gaming devices interconnected by the
23 host computer responsive to a user-effected action at the input device
24 which identifies the preselected gaming devices with the respective
25 *associated address codes*;

26 ('882 Pat. at col. 39, ll. 9-19) (emphasis added).

77. CDS argues that the phrase "associating each gaming device with a unique address code"

1 means that "each gaming device is connected to a unique address code that is unique among the
2 entire network of gaming devices." In other words, each gaming device has its own unique
3 identification number, *independent of the network connections of which it is a part*. Acres argues
4 that CDS' proposed construction describes only one among many possible techniques for associating
5 each gaming device with a unique address code. Acres argues that another technique described by
6 the patent is a technique in which the gaming devices are distinctly addressed *in terms of their*
7 *network connections*--i.e., gaming device #13 connected to controller #3 is distinct from gaming
8 device #13 connected to controller #4. Under this example, the uniqueness of each gaming devices'
9 address depends on the controller of which it is a part. Acres argues, therefore, that the phrase
10 "associating each gaming device with a unique address code" should be construed to mean that each
11 one of the "gaming devices has its own address distinct from the address of any other of those
12 gaming devices." The Court agrees with Acres for the following reasons:

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15 78. Although the claim language is unclear on this point, the specification describes in detail how
16 the preferred embodiment of the bonusing invention assigns a unique address to each gaming device.
17 See generally '961 Pat. at col. 34, l. 1 to col. 35, l. 4 (titled "Assigning Gaming Device
18 Addresses"). The specification explains that in the preferred embodiment the gaming devices
19 connected to a particular floor controller are each assigned a unique one-byte address consisting of
20 a shorthand representation of the four-byte unique identification number associated with the Data
21 Communication Node ("DCN") contained in each gaming device. (See *id.* at col. 34, ll. 2-15.)
22 Because a one-byte address allows up to 256 unique addresses, up to 256 gaming devices connected
23 to a particular floor controller can be associated with a unique address code:
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1 As described above, in the preferred embodiment of the invention,
2 the floor controller uses a shorthand token representation of the
3 DCN's unique identification number to address the DCN. In the
4 preferred embodiment, a single byte address is used to address
5 a DCN on any given current loop. This one-byte address
6 allows up to 256 DCNs to be supported on any given current loop
7 network.

8 (Id. at col. 34, ll. 2-8); (Acres Br. p. 35 at ¶ 73.)

9 79. The system described in the patent can include multiple floor controllers, with each floor
10 controller connected to multiple current loop networks, and with each current loop network
11 connecting multiple gaming devices, to support as many as 8,192 separate gaming devices in total.
12 (See '961 Pat. at col. 7, ll. 1-7; col. 19, ll. 1-11.) Together with identification of the current loop
13 network, the single byte address providing 256 distinct values can then uniquely identify as many
14 as 8192 different gaming devices. (Mikohn Br. p. 36 at ¶ 74.)

15 80. CDS contends that for purposes of implementing the bonusing invention, one skilled in the
16 art would understand that the specification only describes a technique in which the four-byte
17 identification number assigned to each DCN is associated with each gaming device as a unique
18 address code. The specification explains, however, that this technique is cumbersome because the
19 use of a four-byte address instead of a one-byte address creates unnecessary traffic on the network:

20 In the preferred embodiment, only 64 such DCNs are connected to a
21 single current loop network and therefore the single byte address is
22 more than adequate. The single byte address substantially reduces the
23 amount of traffic on the current loop network by reducing the number
24 of bytes from four in the unique identification number to one for the
25 shorthand token representation.

26 ('961 Pat. at col. 34, ll. 8-15); (Acres Br. p. 36 at ¶ 75.) Thus, the specification is clear that the

1 invention is not limited solely to the single addressing technique proposed by CDS.

2 81. CDS argues, however, that the meaning Acres attaches to the phrase "associating each
3 gaming device with a unique address code" does not make sense when it is read in connection with
4 the following portion of the specification:
5

6 The personality board...provides a unique identification number that
7 the host computer can use to uniquely address the gaming device.
8 *The personality board allows the devices to be readily removed and
reinstalled in the network without any manual reconfiguration by the
operator, such as resetting dip switches.*

9 ('961 Pat. at col. 16, ll. 41-49) (emphasis added). CDS contends that under Acres' definition of
10 the phrase "associating each gaming device with a unique address code," gaming devices could not
11 be removed and reinstalled without manually resetting DIP switches. CDS contends that the gaming
12 devices can be removed and reinstalled without the use of manual DIP switches only if each gaming
13 device has its own unique identification number, independent of the network connections of which
14 it is a part. As Acres points out, however, that portion of the specification discussing the removal
15 and reinstallation of gaming devices without manual reconfiguration describes only one embodiment
16 of the invention. The Court will not limit the scope of the claims to cover just one of the
17 embodiments described in the specification. *See, e.g., Speciality Composites v. Cabot Corp.*, 845
18 F.2d 981, 987 (Fed.Cir.1988).
19

20
21 82. CDS's construction of the phrase "associating each gaming device with a unique address
22 code" is limited to just one approach for addressing gaming devices, and improperly ignores other
23 embodiments described in the patent specification. *See Karlin Technologies*, 177 F.3d at 973.
24 Indeed, the claim construction urged by CDS excludes the preferred embodiment described in the
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1 patent. *See Vitronics*, 90 F.3d at 1583-84 ("Such an interpretation [excluding the preferred
2 embodiment] is rarely, if ever, correct and would require highly persuasive evidentiary support...").
3 Accordingly, the Court rejects CDS' proposed construction of that phrase.
4

5 11. "Predetermined Event"

6 83. CDS and Acres dispute the meaning of the term "predetermined event" in claim 10 of the
7 '882 patent and claim 22 of the '817 patent. Both claims describe a process involving the issuance
8 of a command over the network in response to or upon the occurrence of a "predetermined event,"
9 which causes payment. See '882 Pat. at col. 39, ll. 22-26 ("issuing a command over the network
10 to one of said preselected gaming devices responsive to a predetermined event; and paying at said
11 one gaming device in accordance with the command"); '817 Pat. at col. 40, ll. 60-62 ("issuing a
12 command over the network to cause a bonus to be paid from the pool by one of said preselected
13 gaming devices upon the occurrence of a predetermined event"). The parties agree generally that
14 a "predetermined event" is an event that is predetermined as to the fulfillment of a time condition
15 or other condition. The parties disagree, however, as to the types of examples that can constitute
16 a "predetermined event." The parties dispute, for example, whether "hitting a jackpot" or "any coin
17 in event" qualifies as a predetermined event. CDS argues that such events do not qualify as
18 "predetermined events" to the extent they are random. CDS argues, for example, that a "coin-in
19 event" would be a "predetermined event" only if it were based on a predetermined number of coins-
20 in. Acres argues that no such requirement exists and that CDS is improperly limiting the term
21 "predetermined event" to exclude events such as coin-in events, jackpot events and bonus pool
22 threshold events.
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1 84. The specification does not specifically define the term "predetermined event." The
2 specification, however, describes "predetermined events" as triggers which are preset:

3 The floor controller also monitors the system for certain event
4 triggers in step 532. These triggers can be stored in the data base and
5 fetched by the floor controller during its power-up procedures. *These*
6 *triggers indicate if and when certain events occur.* Examples of event
7 triggers include: *the drop period, the end-of-day, the bonus period,*
8 *etc.* If an event has occurred, the floor controller handles the event
9 in step 534...[One type of event] can be referred to as a bonusing
10 event. The floor controller checks to see whether the event is a
11 bonusing event in step 540. *The bonusing events can also be*
12 *triggered by the time of day.* For example, *the bonusing event may*
13 *be triggered from midnight to 4:00 a.m. on weekdays.* The bonusing
14 periods can be specified in the data base. If the triggered event is a
15 bonusing event, the floor controller inserts a corresponding
16 reconfiguration message in the output message queue in step 542.
17 The reconfiguration message includes a reconfiguration command that
18 is sent to an appropriate machine. *The machine, upon receiving the*
19 *reconfiguration command, reconfigures its payout schedule in*
20 *accordance with the received reconfiguration command.*

21 ('961 Pat. at col. 35, ll. 26-56) (emphasis added). As can be seen from the specification, the events
22 described are those that are determined in advance of their occurrence. The specification does not
23 include in its discussion of triggering events, events that are random in occurrence. (See *id.* at col.
24 35, l. 61 to col. 36, l. 4.) Thus, the Court agrees with CDS that events which are random cannot
25 be "predetermined events" as that term is described in the specification. Moreover, the plain
26 meaning of the term "predetermine" supports such a view. The term "predetermine" is defined as
"[t]o determine, decide, or establish ahead of time." WEBSTER'S II NEW RIVERSIDE
UNIVERSITY DICTIONARY (1984), p. 926. Clearly, an event that is random cannot be
determined, decided or established in advance of its occurrence. The Court, therefore, will construe

1 the term "predetermined event" as follows: any non-random event that is determined, decided or
2 established in advance of its occurrence.

3 85. The Court will not, however, decide whether certain coin-in events, jackpot events, bonus
4 threshold events, or other examples listed by the parties can be "predetermined events." That task
5 is not before the Court. The only task before the Court is determining the meaning of the term
6 "predetermined event." Whether certain examples are "predetermined events" touches upon issues
7 of actual infringement. That presents issues of fact, not questions of law to be decided in this
8 Court's interpretation of the disputed claims of the patent.⁶

10
11 12. "To One Of"

12 86. CDS and Acres dispute the meaning of the phrase "to one of" in claim 10 of the '882 patent.
13 Claim 10 recites, in pertinent part: "issuing a command over the network *to one of said preselected*
14 *gaming devices* responsive to a predetermined event; and *paying at said one gaming device in*
15 *accordance with the command.*" ('882 Pat. at col. 39, ll. 22-26) (emphasis added). CDS argues
16 that the phrase "to one of" means "to one of" and does not mean "to more than one of." That is,
17 CDS contends that the command that is issued over the network can only be sent to one, and only
18 one, gaming device. Acres argues, however, that one skilled in the art would understand that "to
19 one of" can mean more than one. In other words, Acres contends that the phrase means that the
20 command described in claim 10 is issued to at least one gaming device but may be issued to more
21 than one gaming device. The Court agrees with CDS on this point.

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25 ⁶ Indeed, the Court does not have sufficient evidence before it to determine whether each and every
26 example disputed by the parties is a "predetermined event."

1 87. Construction of a claim begins with the words themselves, *Bell Communications*, 55 F.3d
2 at 619-20, which are generally given their customary and ordinary meaning. *Vitronics*, 90 F.3d at
3 1582. Here, the claim specifically states that the command is issued to *one* gaming device.
4 Nothing in the language of the claim itself supports Acres' view that the command is issued to *more*
5 *than one* gaming device. In addition, the last limitation of the claim refers to paying at *said one*
6 gaming device. The reference to gaming device in the singular bolsters the interpretation that "to
7 one of said preselected gaming devices" means only one gaming device. See *WMS Gaming Inc. v.*
8 *International Game Tech.*, 184 F.3d 1339, 1350 (Fed.Cir.1999). Moreover, nothing in the
9 specification supports Acres' view that the command discussed in claim 10 can be issued to more
10 than one gaming device. In such situations, a court should construe a phrase according to its plain
11 meaning:
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14 The plain meaning of 'selecting one of said...numbers' is selecting a
15 single number, not a combination of numbers. In addition, the last
16 limitation of the claim refers to 'said selected number.' This reference
17 to 'number' in the singular sense bolsters the interpretation that
18 'selecting one of said...numbers' is limited to selecting a single
19 number. Nothing in the written description, drawings, or prosecution
history indicates that the phrases 'one of said...numbers' or 'said
selected number' should be given anything other than their ordinary
meaning.

20 *Id.*(internal citation omitted). The Court, therefore, will construe the phrase "to one of," as that
21 phrase is used in claim 10 of the '882 patent, according to its plain meaning: the command that is
22 issued over the network can be *sent to one, and only one*, gaming device.
23

24 13. "Paying At Said One Gaming Device"

25 88. CDS and Acres dispute the meaning of the phrase "paying at one said gaming device in
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1 accordance with the command" in claim 10 of the '882 patent. As discussed above, claim 10
2 describes: "issuing a command over the network to one of said preselected gaming devices
3 responsive to a predetermined event; and *paying at said one gaming device* in accordance with the
4 command." ('882 Pat. at col. 39, ll. 22-26) (emphasis added). CDS argues that the phrase "paying
5 at said one gaming device" means that payment is made at the gaming device that receives the
6 command. Acres contends that the phrase means that "payment must be made at one gaming
7 device, but can be made at more than one gaming device, depending on the content of the
8 command." The Court disagrees with Acres for the same reasons that were given in the preceding
9 section. The claim language clearly addresses the gaming device in the singular. Moreover, there
10 is nothing in the specification that indicates the inventor intended to graft any unique meaning on
11 to the plain meaning of the phrase "at said one gaming device." The Court, therefore, will construe
12 the phrase to mean what it says: payment is made at the gaming device that receives the command.

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15 89. CDS also argues that the phrase "paying at said one gaming device" means that payment is
16 made *at the location of* the gaming device. Under CDS' proposed construction, "payment can be
17 made by a dealer, or by the machine, and the payment can be in the form of coins, chips, credits,
18 or a receipt redeemable for compensation, as long as the transaction occurs at the gaming device."
19 Acres contends that the phrase means that "payment must be automatic, i.e., *made by the gaming*
20 *device itself* as opposed to manual payment by a person." The issue, therefore, is whether the term
21 "at" is used in claim 10 to mean "payment by the gaming device" or "payment at the physical
22 location of the gaming device."
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25 90. The patent's intended meaning for the term "at" is not clear from a reading of the claim
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1 language itself. Indeed, dictionary definitions for the term "at" could support either party's view.
2 *Compare* WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY(1984), p. 134 at 1a
3 ("In the location of") *with* id. at 9 ("By way of: Through"). Any ambiguity, however, is cleared
4 upon reading the specification.

5
6 91. The specification reveals that "payments at the gaming device" refers to automated payments
7 made by the gaming device. For example, the specification discusses that manual payment of bonus
8 awards is cumbersome and inefficient and that the invention fills a need for automated payment of
9 bonus awards:

10
11 An example of such bonuses include a "double jackpot" wherein a
12 player hitting a jackpot is paid double the jackpot amount. Currently
13 this is implemented by having an attendant manually payout the
14 additional payout amount. *This manual technique, however, is*
15 *cumbersome and inefficient to administer* because an attendant must
be constantly supervising the bonusing gaming devices. Accordingly,
a need remains for an automated method and apparatus to provide
bonusing for gaming devices.

16 ('961 Pat. at col. 2, ll. 9-18) (emphasis added); (Acres Br. p. 40 at ¶ 82.) In addition, the
17 specification discusses how bonuses awarded are "*automatically paid out* in addition to the payout
18 amount determined by the machine's default payout schedule." (See '961 Pat. at col. 26, ll. 16-
19 21.)(emphasis added). Further, the specification discusses "automatic mystery jackpots," which
20 "allow a *machine to payout* a mystery jackpot even when a jackpot was not won." (See '961 Pat.
21 at col. 36, ll. 26-29) (emphasis added); (Acres Br. p. 41 at ¶ 83.) Clearly, this language would
22 have alerted one skilled in the art that the inventor used the phrase "paying at said one gaming
23 device" to mean automatic payment by the gaming device itself.
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14. "Bonus Pool"

92. CDS and Acres dispute the meaning of the term "bonus pool" in claim 19 of the '882 patent and claim 22 of the '817 patent. Claim 19 is a method claim that is dependent on claim 10. Claim 19 includes all the steps of claim 10 plus the step of "allocating a predetermined percentage of the cumulative amount wagered at all of the preselected gaming devices to a *bonus pool* and wherein paying at said one gaming device in accordance with the command *comprises paying said pool* at said one gaming device." ('882 Pat. at col., ll. 41-46)(emphasis added). Claim 22 of the '817 patent describes "allocating a predetermined percentage of the money played to a *bonus pool*; and issuing a command over the network to cause a bonus to be paid *from the pool* by one of said preselected gaming devices upon the occurrence of a predetermined event." ('871 Pat. at col. 40, ll. 58-62) (emphasis added). CDS argues that a "bonus pool" is "an accounting pool created for the purpose of turning bonuses on and off" and cannot mean "a progressive escrow account." CDS further argues that although the claims state that payments are made out of the pool, the specification does not describe this function and that, therefore, this claim is invalid as a matter of law. Acres argues that CDS is reading a narrow interpretation of the term "bonus pool" into the claims. Acres argues that the term "bonus pool" means a "pool for collecting money that may be paid as one or more bonuses." In addition, Acres argues that, for purposes of claim 19 of the '882 patent, the limitation of "paying said pool at said one device" limits the invention of claim 10 "to a progressive jackpot paid to a single player."

93. - The language of the claims is clear. In claim 19 of the '882 patent, the term "bonus pool" is described as a pool that collects money that may be paid as the *entire amount* of the bonus

1 collected (See '882 Pat at col., ll. 41-46 ("allocating...percentage...of...amount wagered to a bonus
2 pool and...paying *said pool*) (emphasis added)). In claim 22 of the '817 patent, however, the term
3 is described as a pool that collects money that may be paid as a *portion* of the amount of the bonus
4 collected (See '871 Pat. at col. 40, ll. 58-62. ("allocating...percentage...of...money played to a
5 bonus pool and...cause a bonus to be paid *from the pool*") (emphasis added).)

7 94. Moreover, the Court finds that the specification does discuss paying progressive amounts
8 from the "bonus pool." The specification describes the progressive jackpot promotion-in which any
9 number of gaming devices may be combined into a progressive jackpot:
10

11 Another reconfiguration command allows any number of machines on
12 the network to be combined in a common jackpot having a common
13 jackpot payout schedule, wherein the reconfiguration command
14 reconfigures the selected machines to payout in accordance with the
15 common jackpot payout schedule. In this case, the reconfiguration
16 message would be queued up for each of the selected machines to be
17 combined in a common jackpot. One example of a common jackpot
18 is a progressive jackpot. Unlike the prior art progressive jackpot
19 systems, however, the progressive jackpot according to the invention
20 is not limited to a predetermined number of machines. In the prior
21 art progressive jackpot systems, a bank of machines are connected to
22 a common progressive jackpot controller and only those machines can
23 be included in the progressive jackpot. In contrast, any machine on
24 the network, including those connected to other floor controllers can
25 be combined into a common progressive jackpot.
26

20 ('961 Pat. at col. 36, ll. 5-22); (Acres Br. p. 25 at ¶ 54.)

21 95. The specification describes how the progressive jackpot embodiment described above pays
22 the progressive amount from the "bonus pool." (See '961 Pat. at col. 36, ll. 37-39.) Indeed, the
23 specification discusses payment of progressive bonuses in describing how the bonus pool is
24 managed:
25
26

1 This system also allows for machines connected to different floor
2 controllers to be combined into a single bonusing promotion. In this
3 case, one of the floor controllers assumes primary responsibility for
4 managing the bonus pool while the other floor controllers act as
5 intermediaries between the primary floor controller and the machines
6 connected to the other floor controllers. Thus, the system according
7 to the invention allows for much greater flexibility in running
8 bonusing promotionals that heretofore possible. *Prior art systems*
9 *required certain predetermined machines to be connected into a bank*
10 *for any given bonus award such as a progressive bonus.* The system
11 according to the invention allows any machine in the casino to be
12 combined in a bonus type situation. *The system also insures that the*
13 *bonusing promotionals will operate substantially in the black, i.e., -*
14 *the bonus pool is greater than the bonus payouts.*

15 ('961 Pat. at col. 37, ll, 37-52)(emphasis added); (Acres Br. p. 26 at ¶ 55.) The Court finds that
16 the specification would alert one skilled in the art that progressive awards can be paid from the
17 "bonus pool."

18 96. Based on these findings, the Court agrees with Acres insofar as it argues that nothing in the
19 claim language requires narrowing the plain meaning of "bonus pool" to the narrow interpretation
20 proposed by CDS. *See Johnson Worldwide*, 175 F.3d at 989-90.

21 97. The Court, therefore, makes the following conclusions: First, the Court will adopt the plain
22 meaning of the term "bonus pool." With respect to claim 19 of the '882 patent, the term "bonus
23 pool" means a pool that collects money that may be paid as the entire amount of the bonus collected.
24 With respect to claim 22 of the '817 patent, the term means a pool that collects money that may be
25 paid as a portion of the amount of the bonus collected. Second, the Court concludes that the term
26 "bonus pool" should be construed to include within its meaning a progressive pool.

15. "Issuing a Command to Cause a Bonus to be Paid Upon the Occurrence..."

of a Predetermined Event"

98. CDS and Acres dispute the meaning of the phrase "issuing a command to cause a bonus to be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event" in claim 22 of the '817 patent. (See 817 Pat. at col. 40, ll. 50-62.) CDS argues that the phrase means that "the command must cause the bonus to be paid." Acres argues that the phrase means that "the bonus is paid upon the occurrence of the predetermined event."

99. The Court finds that the claim language lends support to both parties' proposed constructions. On the one hand, the claim appears to state that the *command* causes the bonus to be paid. On the other hand, the claim can be read to mean that the bonus is not paid until the occurrence of the *predetermined event*. The Court therefore finds the claim language to be ambiguous. Accordingly, the Court may look to the specification for guidance in interpreting this phrase. See *Johnson Worldwide*, 175 F.3d at 990.

100. The specification provides support for Acres' position. In discussing the implementation of "automatic mystery jackpots," for example, the specification provides that a reconfiguration command specifies that a jackpot occurs after the occurrence of a predetermined event: "[T]he *reconfiguration command can specify that the mystery jackpot is to occur after* a certain number of coins, a certain number of handle pulls, or a variety of other conditions specified by the reconfiguration commands." ('961 Pat. at col. 36, ll. 29-35)(emphasis added). CDS does not cite to any portion of the specification that would support its proposed construction. Accordingly, the Court concludes that the phrase "issuing a command to cause a bonus to be paid upon the occurrence of a predetermined event" means that the bonus is paid upon the occurrence of the

1 predetermined event.

2 **RECOMMENDATION**

3 It is the recommendation of the undersigned United States Magistrate Judge that the Court
4 adopt the foregoing findings of fact and conclusions of law.
5

6 DATED this 24th day of May, 2000.

7 

8
9 **LAWRENCE R. LEAVITT**
10 **UNITED STATES MAGISTRATE JUDGE**
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2-18

STEVE MORRIS
 ADAM P. SEGAL
 SCHRECK MORRIS
 1200 Bank of America Plaza
 300 South Fourth Street
 Las Vegas, Nevada 89101
 (702) 382-2101

STEVEN E. SHAPIRO
 MITCHELL, SILBERBERG & KNUPP LLP
 11377 West Olympic Boulevard
 Los Angeles, CA 90064

Attorneys for Plaintiff

UNITED STATES DISTRICT COURT

DISTRICT OF NEVADA

MIKOHN GAMING CORPORATION,) No. CV-S-97-01383-HDM (LRL)

Plaintiff,)

vs.)

[BASE FILE]

ACRES GAMING, INC.,)

Defendant.)

ACRES GAMING INCORPORATED,)

EXPERT REPORT OF MICHAEL J.
 BENNETT PURSUANT TO FED. R.
 CIV. P. 26(A)(2)

Plaintiff,)

vs.)

MIKOHN GAMING CORPORATION,
 CASINO DATA SYSTEMS,
 NEW YORK NEW YORK HOTEL &
 CASINO, LLC and SUNSET STATION
 HOTEL & CASINO,

Defendants)

I, Michael J. Bennett, the undersigned, state as follows:

1 I am an engineer in the field of electronics design. Previously, I was a senior
2 engineer at Intel Corporation, where I specialized in assisting customers of Intel with the
3 design of products and systems utilizing Intel microprocessors and peripherals. Since
4 1989, I have worked primarily in the casino industry, designing electronic gaming
5 systems and other electronic products associated with the casino industry. Prior to my
6 beginning my work in the gaming industry, I received formal training in both electronics
7 and computers. I have a degree in electronics technology and another in management
8 information systems.

9 For my work in the casino industry, I have received three United States patents.
10 They include U.S. Patent 5,586,936 ("Automated gaming table tracking system and
11 method therefor"), U.S. Patent No. 5,642,160 ("Digital image capture system for photo
12 identification cards"), U.S. Patent No. 5,550,359 ("Time and attendance system and
13 method therefor").

14 For purposes of preparing this report, I have reviewed the following documents:

- 15 1. United States Patent No. 5,655,961;
- 16 2. United States Patent No. 5,752,882;
- 17 3. United States Patent No. 5,280,909;
- 18 4. United States Patent No. 4,652,998;
- 19 5. A Great Britain patent application entitled "Systems for Playing Games,"
20 filed on October 20, 1983 and published on July 10, 1985;
- 21 6. An SB-2 statement filed by Acres Gaming with the SEC on September 20,
22 1993.

23 Claim 10 of the '882 patent reads as follows:

24 A method of operating gaming devices interconnected by a host computer
25 having a user-operated input device comprising:

26 associating each gaming device with a unique address code;

27 preselecting less than all of the gaming devices interconnected by the
28 host computer responsive to a user-effected action at the input device
which identifies the preselected gaming devices with the respective
associated address codes;

using the network to track activity of the preselected gaming
devices;

issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and

paying at said one gaming device in accordance with the command.

It appears that, on July 10, 1985, the British patent office published the patent application filed by Mecca Leisure Limited in Great Britain directed to "Systems for Playing A Game." That patent application describes the invention described in claim 10 of the '882 patent.

More specifically, the Mecca Leisure patent application describes a gaming system that comprises a host computer ("control unit") interconnected to a plurality of gaming devices ("play stations"). The host computer has an input device with which the system operator ("caller") can select less than of the gaming devices for purposes of playing a particular game. Once the system operator selects the gaming devices for participation in the game, the other gaming devices are locked out of the game. As described in the patent application, the game is played over and over until there is a single winner. The host computer then sends a command to the winning device to signify the win and pays credits to the winning device.

Below is a chart that sets forth the elements of claim 10 of the '882 patent on the left and the matching description in the Mecca Leisure patent application on the right.

'882 Patent, Claim 10	Mecca Leisure Patent Application, No. GB 2151 054 A
A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:	<p>The Mecca Leisure patent application states that "[t]here is provided a <u>system for playing a game</u>, comprising a <u>central apparatus</u> and a <u>plurality of remote uncommitted programmable apparatuses</u>, each of the remote apparatuses being arranged to receive at least part of a game program from the central apparatus." [1:13-18]</p> <p>The Mecca Leisure patent application expressly provides that it covers a "system for playing a game comprises a control unit 3 <u>connected to a plurality of play stations</u> 5 by a bus 18." [Abstract.] It further states that "[t]he remote apparatuses, the central apparatus, and the monitors may be <u>connected</u> to a common bus, preferably of the serial data type." [1:130 to 2:1-3]</p> <p>The patent application specifically states that the control unit "<u>comprises a hand-held control unit 14</u> for controlling progress of the game." [2:77-78]</p>
associating each gaming device with a unique	The patent application expressly states that "[e]ach remote apparatus and monitor will generally have a <u>unique</u>

1 2 3 4 5 6	address code;	address." [2:9-10] The patent application further states: "The play stations 5, the display units 19, and the check units 7 and 20 perform an initialization routine which enters <u>the address of each unit</u> as set in the switches 35 and prepares the unit to receive data from the bus 18." [3:108-113] It further states that, "[i]n particular, the top right corner of the screen 50 gives the player address, in this case 12' with <u>the address being unique to the particular play station.</u> " [3:75-78]
7 8 9 10 11 12 13 14	preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;	When the system operator ("caller") decides to commence the game, he or she actuates a key on an input device connected to the host computer to prevent further players from joining a particular game. In this manner, he or she selects less than all of the gaming devices for the game. Specifically, the Mecca Leisure patent application states: " <u>When the caller judges that a sufficient number of players have joined the game, he actuates a key on the key pad 14 to cause the game to proceed to the next operation. At this stage, no further play stations 5 may join that particular game,</u> although coins or tokens may be inserted so as to prepare a non-operative play station for the next game." [4:44-52]
15 16 17 18 19 20 21 22 23 24 25	using the network to track activity of the preselected gaming devices;	In the Mecca Leisure system, the activities of the "pre-selected" play stations are tracked to determine whether a win is scored on one of the selected play stations. The patent application states as follows: "A win is scored when one of the four digit numbers in the box 57 of one of the play stations corresponds exactly to the four digit number in the box 56 and common to all play stations. <u>This may be signaled automatically to the control unit 3.</u> " [4:65-71] It is additionally clear that the host computer tracks the activity of the gaming devices because if a game is not won, the host computer must start a new game. The patent application states: " <u>[I]f no winning combination is found for the four digit number generated by the control unit, then a further four digit number is generated and supplied</u> to the play stations and the procedure is continued until a winning combination is found. In general, such a winning combination will normally be found within four such 'plays.'" [4:74-82]
26 27	issuing a command over the network to one of	In the Mecca Leisure system, when a winning combination is claimed, the display of the number in the

28

<p>1 said preselected gaming 2 devices responsive to a 3 predetermined event; 4 and</p>	<p>box 56 on all of the screens of play stations flashes to signify a claimed win, which means that a command is issued by the control unit to one of the "preselected" play stations to flash the number in the box 56. Each of the "preselected" play stations is responsive to a claim of a winning combination, a predetermined event. The patent application states: "When a winning combination is claimed by operation of one of the call switches 55, the display on the display unit 19 flashes, as does the display of the number in the box 56 on all of the screens of the play stations to signify a claimed win." [4:86-91]</p>
<p>8 paying at said one 9 gaming device in 10 accordance with the 11 command.</p>	<p>The player at the winning play station is paid by credits at the play station. The screen 50 at each of the play stations shows the credits obtained. The patent application states: "[T]he display provided by all of the play stations 5 has the format shown in Figure 5, this format comprising information which is thus common to all of the play stations. . . . Below this is information concerning the price of each game, the stake paid, and <u>any credits obtained.</u>" [3:71-85] In addition, the "control unit performs various 'housekeeping' functions and, in particular, supplies information to a cashier on the screen 11, such as ... the total 'credits' from wins" [4:103-107] Since the control unit is responsible for supplying information regarding "credits from wins," it is clear that it also supplies the play stations with the credit information.</p>

18
19 As such, the system described in the Mecca Leisure patent application is the same
20 as the invention specified in claim 10 of the '882 patent. In addition, the Mecca Leisure
21 patent application describes fully the subject gaming system and someone knowledgeable
22 with respect to designing gaming systems would be able to construct the device from
reading the Mecca Leisure patent application.

23 I have also reviewed United States Patent No. 4,652,998 (the '998 patent) issued to
24 Koza et al. on March 24, 1987 and filed on January 4, 1984. The '998 patent describes a
25 video amusement gaming system with pool prize structures including remote game
26 terminals and a central controller with two-communications between the remote game
27 terminals and the central controller. Prize awards are based upon random shuffling of
28 a set of prize awards among a predetermined pool of plays for each remote game
terminal. The shuffling of prizes is based upon a random seed produced either by the

remote terminal of the central controller or by both. The '998 patent describes the invention described in claim 10 of the '882 patent.

'882 Patent, Claim 10	U.S. Patent No. 4,652,998
A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:	The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a central controller 24, which is primarily comprised of a computer.... <u>The central controller 24 maintains supervision over the entire network of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks.</u> " [2:53 to 3:4]
associating each gaming device with a unique address code;	The '998 patent states: "A polling procedure is utilized, whereby <u>the telephone number of each terminal controller 70 is called in sequence, followed by transfer of data from the central controller 24 or a message from the central controller 24 requesting data.</u> " [20:58-62]
preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;	The '998 patent states: "The central control of the lottery system permits a number of unique system capabilities. One such capability is an electronic market survey. <u>The sophisticated centrally controlled lottery system can draw a random sampling of players who can be asked to participate in the survey.</u> In the electronic marketing survey a free game play is offered on the remote terminal if the player will answer a few, simple market survey questions. This, on a random, or other basis a predetermined number of plays in each mini-pool are selected as market survey free plays. The remote terminal displays on the video monitor the offer of a free game in exchange for answers to the market questions and allows the player to accept or reject the offer. Assuming the offer is accepted the basic questions, preferably yes-no questions, are displayed beginning with marital status, and sex, followed by questions about lottery use, level of education, age, location, etc. The player answers the questions using the player control devices 57. A speech recognition unit is particularly suitable for input of survey answers. This market survey could also be sold to others to permit market surveys relating to other than lottery markets. At the conclusion of the questions, a free game is provided." [22:60-23:15]

1 2 3 4	using the network to track activity of the preselected gaming devices;	The '998 patent states: "The communications medium 22, in which the preferred embodiment is a telephone network, links the remote terminal 20 to the central controller 24 to permit, inter alia, a detailed accounting of terminal activity upon request from the central controller 24." [6:56-7:3]
5 6 7 8 9	issuing a command over the network to one of said preselected gaming devices responsive to a predetermined event; and	"At the conclusion of the questions, <u>a free game is provided..</u> "
10 11 12	paying at said one gaming device in accordance with the command.	"At the conclusion of the questions, <u>a free game is provided.</u> "

13 As such, the system described in the '998 patent is the same as the invention
14 specified in claim 10 of the '882 patent. In addition, the '882 patent describes fully the
15 subject gaming system and someone knowledgeable with respect to designing gaming
systems would be able to construct the device from reading the '882 patent.

16 It also appears that on September 20, 1993, Acres filed an "SB-2" statement with the
17 SEC that described fully the invention described in claim 10 of the '882 Patent. The SB-2
18 statement describes an Acres gaming system called "Concept III" that comprises "five
19 products," including "casino accounting, player tracking, progressive jackpot systems for
20 table games, progressive jackpot systems for gaming machines, and bonusing systems."
21 As described in the SB-2 statement: "Concept III and its component products are a
modular, integrated system. The casino accounting, player tracking and game promotion
modules can be purchased and installed individually or as components of an integrated
system."

22 The SB-2 further states that a "Concept III installation includes electronic hardware
23 installed in the slot machines, personal computers that serve as controllers for groups of
24 slot machines, and software to record and analyze data, generate reports to casino
25 management, and operate progressive jackpot and bonusing systems." The SB-2 also
explains that "Concept III employs personal computer technology, and is designed to take
advantage of future improvements in such technology."

26 With respect to the Concept III progressive jackpot system for gaming machines
27 product, the SB-2 describes the product as follows:

28

A progressive jackpot system links a number of slot machines to generate a collective jackpot. As coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot. Other progressive jackpot systems require a controller to be installed at the same location as the machines that are linked to the jackpot. In contrast, a Concept III progressive jackpot system is programmed remotely from a personal computer. This method of programming enables the casino manager to determine which machines are linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot. The flexibility provided by Concept III enables the casino manager to design, alter and readily implement new progressive jackpot promotions which may be created from time to time.

A chart comparing the content of the SB-2 statement against the elements of Claim 10 of the '882 Patent is set forth below.

'882 Patent, Claim 10	SB-2 Statement Filed with SEC on September 20, 1993
A method of operating gaming devices interconnected by a host computer having a user-operated input device comprising:	Acres's SB-2 statement states that " <u>personal computers...serve as controllers for groups of slot machines.</u> " It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer."
associating each gaming device with a unique address code;	Associating each gaming device with a unique address is inherent. The SB-2 statement clearly describes a personal computer networked with a plurality of gaming devices. In any such network system, each device must have a unique address.
preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated	Acres's SB-2 statement states that "programming [the Concept III progressive jackpot system remotely from a personal computer] <u>enables the casino manager to determine which machines are linked to the progressive jackpot.</u> "

1 address codes;	
2 using the network to 3 track activity of the 4 preselected gaming 5 devices;	The tracking of preselected gaming devices is inherent in the statement that "[a]s coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot."
6 issuing a command over 7 the network to one of 8 said preselected gaming 9 devices responsive to a 10 predetermined event; 11 and	By definition, a "progressive jackpot" is won by a player playing at a "machine...linked to the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, <u>enables the casino to automate the payment of and accounting for double jackpot and other bonus programs.</u> "
12 paying at said one 13 gaming device in 14 accordance with the 15 command.	By definition, a "progressive jackpot" is paid to the player who wins the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs."

16 As of the time it was published in September 1993, the disclosure of the SB-2 was sufficient to enable a person skilled in the art of designing gaming systems to construct a device meeting claim 10 of the '882 patent. It is clear from the SB-2 statement that a computer network is being discussed. Computer networks were well known in the art and once it was determined to build the system, it would be a simple matter of programming to complete it.

17 Finally, I have also reviewed a "Concept III" brochure that I understand was circulated in the gaming industry. The Concept III brochure teaches the method described in Claim 10 of the '882 patent.

20 '882 Patent, Claim 10	The Concept III Brochure
21 A method of operating 22 gaming devices 23 interconnected by a host 24 computer having a user- 25 operated input device 26 comprising:	The figure in the Concept III brochure depicts gaming devices interconnected to a host computer. It also states that "the system is programmed from a personal computer." [p. 3]
27 associating each gaming 28 device with a unique address code;	"Advanced identification techniques let you specify the machine house number as you install it. If the machine is later moved, it is automatically re-located by the system."

1		[p. 3]
2	preselecting less than all	The Concept III brochure states: "You select which
3	of the gaming devices	machines are used in which promotions, connect your
4	interconnected by the	signage and information displays (if any) and begin
5	host computer	operation. Concept III allows any number of different
6	responsive to a user-	promotions to operate simultaneously." [p. 2]
7	effected action at the	
8	input device which	"You simply type in which machines are connected to
9	identifies the	which links and describe the starting jackpots amounts,
10	preselected gaming	increment rates, limits if any, etc." [p. 3]
11	devices with the	
12	respective associated	
13	address codes;	
14	using the network to	"Since Concept III monitors slot activities, it collects all
15	track activity of the	information required for proper slot accounting reports."
16	preselected gaming	[p. 4]
17	devices;	
18		"Concept III also records how long the customer spends at
19		each machine and records the number of coins won,
20		counts games played and hand paid jackpots won." [p. 5]
21	issuing a command over	
22	the network to one of	"We have developed new communication protocols with
23	said preselected gaming	Bally and IGT that allow the AutoScan module to tell the
24	devices responsive to a	machine to pay money from the hopper, place extra
25	predetermined event;	credits on the credit meter or allow play without
26	and	depositing coins. AutoScan can even command the
27		machine to pay all jackpots at two or three times the
28		normal rate and communicate with customers through
		displays mounted on the machine." [p.1-2]
		"AutoScan provides full accounting of bonus payments
		and requires no human intervention for bonus award
		payments." [p. 2]
	paying at said one	
	gaming device in	"Concept III automates double jackpot payments by
	accordance with the	causing the machine hopper to pay bonus amounts." [p. 2]
	command.	

In addition to the above-discussed publications and prior art references, at the time the '882 patent was filed, there were several networked slot accounting and player tracking systems on the market each of which would have met most, if not all, of the claims in the '882 patent. Furthermore, anyone moderately skilled in the art at that time

1 could have constructed the system described by the '882 patent with relative ease. In
2 short, the system described by the '882 patent was fully disclosed in various prior art or
3 published references at the time it was filed.

4 As mentioned above, I have also reviewed United States Patent No. 5,655,961. I
5 understand that Acres Gaming asserts that Mikohn's MoneyTime system infringes claim
6 9 of that patent and that a pay command made to a slot machine by the MoneyTime
7 controller is a "reconfiguration command." However, accepting Acres Gaming's position
8 to be correct, claim 9 would be fully described by United States Patent No. 5,280,909 ('909
9 patent) issued to Tracy on June 25, 1994 and filed on February 6, 1992.

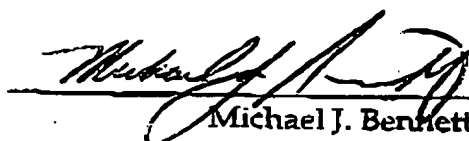
10 The '909 patent describes a gaming system in which a plurality of gaming
11 machines are provided with an additional progressive jackpot gaming system which
12 allows players on the gaming machines to play for a jackpot provided by the progressive
13 system. The controller of the progressive system generates in random fashion at the
14 beginning of a game cycle a jackpot-win value for the progressive jackpot which is
15 displayed to the players of the gaming machine from the beginning of the game cycle.
16 The controller also randomly generates a parameter for use with unit bet information
17 from the gaming machines in determining a current jackpot value. When the current
18 jackpot value is brought to the jackpot-win value, the gaming machine responsible is the
19 winner of the progressive jackpot. The progressive controller also transmits a signal
20 which is supplied to a winning gaming machine and causes the machine to make the
21 jackpot payout.

22 Claim 9 of the '961 patent includes "sending the reconfiguration command after
23 the bonus pool level exceeds a turn-on level." The Tracy patent states as follows:

24 "When a time is reached in which the unit bet information from a register results
25 in an incremented value of JP_c and which equals JP_w , the CPU 21 determines that
26 the progressive jackpot has been won. At this point, the particular gaming
27 machine whose unit bet information resulted in the win is assessed the winner of
28 the progressive game. The CPU 21 then advises the winning machine over the
respective interface and line. [5:29-37]

I have not testified as an expert witness previously. I have not published any
professional writings other than the three patents identified above. I charge \$125 per
hour as an expert in this matter.

Executed this 16 day of February, 1999.


Michael J. Bennett

1 STEVE MORRIS
ADAM P. SEGAL
2 SCHRECK & MORRIS
1200 Bank of America Plaza
3 300 South Fourth Street
Las Vegas, Nevada 89101
4 (702) 382-2101

5 STEVEN E. SHAPIRO
GEORGE M. BORKOWSKI
6 D. JAMES CHUNG
HOWARD H. SEO
7 MITCHELL SILBERBERG & KNUPP LLP
11377 West Olympic Boulevard
8 Los Angeles, CA 90064-1683
Telephone: (310) 312-2000
9 Facsimile: (310) 312-3100

10 Attorneys for Defendant
Mikohn Gaming Corporation
11

12 UNITED STATES DISTRICT COURT

13 DISTRICT OF NEVADA

14 Acres Gaming Inc.,

15 Plaintiff,

16 v.

17 Mikohn Gaming Corporation, Casino Data
18 Systems, New York New York Hotel and
Casino, LLC, and Sunset Station Hotel and
19 Casino,

20 Defendants.

21 Mikohn Gaming Corporation,

22 Counter-Claimant,

23 v.

24 Acres Gaming Inc.,

25 Counter-Defendant.
26

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JUL 07 1993

PERKINS COIE

98-01462
CASE NO. CV-S-97-1383-HDM (LRL)
(Base File)

**EXPERT REPORT OF MICHAEL J.
BENNETT PURSUANT TO FED. R.
CIV. P. 26(A)(2)**

27 I, Michael Joseph Bennett, the undersigned, state as follows:
28

1 I am an engineer in the field of electronics design. Previously, I was a senior engineer at
2 Intel Corporation, where I specialized in assisting customers of Intel with the design of products
3 and systems utilizing Intel microprocessors and peripherals. Since 1989, I have worked primarily
4 in the casino industry, designing electronic gaming systems and other electronic products
5 associated with the casino industry. Prior to my beginning my work in the gaming industry, I
6 received formal training in both electronics and computers. I have a degree in electronics
7 technology and another in management information systems.

8 For my work in the casino industry, I have received three United States patents. They
9 include U.S. Patent 5,586,936 ("Automated gaming table tracking system and method therefor"),
10 U.S. Patent No. 5,642,160 ("Digital image capture system for photo identification cards"), U.S.
11 Patent No. 5,550,359 ("Time and attendance system and method therefor").

12

13 For purposes of preparing this report, I have reviewed the following documents:

- 14 1. United States Patent No. 5,280,909;
- 15 2. United States Patent No. 4,652,998;
- 16 3. United States Patent No. 5,242,163 (the "'163 patent");
- 17 4. United States Patent No. 5,820,459 (the "'459 patent");
- 18 5. United States Patent No. 5,836,817 (the "'817 patent");
- 19 6. A Great Britain patent application entitled "Systems for Playing Games," filed on
20 October 20, 1983 and published on July 10, 1985, filed by Mecca Leisure Limited
21 in Great Britain (the "Mecca Leisure patent");
- 22 7. An SB-2 statement filed by Acres Gaming with the SEC on September 20, 1993;
23 and
- 24 8. Acres's Concept III Marketing Brochure.

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1 Claim 1 of The '459 Patent and the Mecca Leisure Patent

2
3 It appears that, on July 10, 1985, the British patent office published the patent application
4 filed by Mecca Leisure Limited in Great Britain directed to "Systems for Playing A Game." That
5 patent application describes the invention described in Claim 1 of the '459 patent.

6 More specifically, the Mecca Leisure patent describes a gaming system that comprises a
7 host computer ("control unit") interconnected to a plurality of gaming devices ("play stations").
8 The host computer has an input device with which the system operator ("caller") can select less
9 than of the gaming devices for purposes of playing a particular game. Once the system operator
10 selects the gaming devices for participation in the game, the other gaming devices are locked out
11 of the game. As described in the patent, the game is played over and over until there is a single
12 winner. The host computer then sends a command to the winning device to signify the win and
13 pays credits to the winning device.

14
15 Table 1 below sets forth the elements of Claim 1 of the '459 patent on the left and the
16 matching description in the Mecca Leisure patent on the right.

17 **TABLE 1**

18 '459 Patent, Claim 1	Mecca Leisure Patent No. GB 2151 054 A
19 A system for 20 operating a 21 plurality of gaming 22 devices, the system 23 comprising:	The Mecca Leisure patent states that "[t]here is provided a <u>system for playing a game</u> , comprising a central apparatus and a <u>plurality of remote uncommitted programmable apparatuses</u> , each of the remote apparatuses being arranged to receive at least part of a game program from the central apparatus." [1:13-18] Further, the Mecca Leisure patent expressly provides that it covers a " <u>system</u> for playing a game comprises a control unit 3 <u>connected to a plurality of play stations</u> 5 by a bus 18." [Abstract.]
24 a host computer, 25 said host computer 26 including means for 27 generating a 28 reconfiguration command;	The Mecca Leisure patent states that "[t]here is provided a system for playing a game, comprising a <u>central apparatus</u> and a plurality of remote uncommitted programmable apparatuses, each of the remote apparatuses being arranged to receive at least part of a game program from the <u>central apparatus</u> ." [1:13-18] Further, the Mecca Leisure patent expressly provides that it covers a " <u>system for playing a game</u> comprises a <u>control unit</u> 3 <u>connected to a plurality of play stations</u> 5 by a bus 18." [Abstract.] And, it states that

1		"[t]he remote apparatuses, <u>the central apparatus</u> , and the monitors may be
2		connected to a common bus, preferably of the serial data type." [1:130 to
3		2:1-3]
4		In the Mecca Leisure system, when a winning combination is claimed,
5		the display of the number in the box 56 on all of the screens of play
6		stations flashes to signify a claimed win, which means that a <u>command</u> is
7		issued by the control unit to one of the "preselected" play stations to
8		<u>reconfigure</u> the display of the display to flash the number in the box 56.
9		Even if Acres interprets the reconfiguration command to be only a pay
10		command, the Mecca Leisure patent anticipates the "reconfiguration
11		command" because in the Mecca Leisure patent, the player at the
12		winning play station is paid by credits at the play station in response to
13		the command received from the central apparatus.
14	a user-operated input device connected to said host computer;	The Mecca Leisure patent specifically states that <u>the control unit</u> "comprises a hand-held control unit 14 for controlling progress of the game." [2:77-78]. "The controller unit has a <u>keypad</u> ." [2:69-70].
15	a network interconnecting the gaming devices to the host computer;	The Mecca Leisure patent expressly provides that it covers a "system for playing a game comprises a <u>control unit 3 connected to a plurality of</u> <u>play stations 5</u> by a bus 18." [Abstract.] And, it states that "[t]he remote apparatuses, the central apparatus, and the monitors may be <u>connected</u> <u>to a common bus, preferably of the serial data type</u> ." [1:130 to 2:1-3]
16	means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device;	When the system operator ("caller") decides to commence the game, he or she actuates a key on an input device connected to the host computer to prevent further players from joining a particular game. In this manner, he or she selects less than all of the gaming devices for the game. Specifically, the Mecca Leisure patent states: " <u>When the caller judges</u> <u>that a sufficient number of players have joined the game, he actuates a</u> <u>key on the key pad 14</u> to cause the game to proceed to the next operation. <u>At this stage, no further play stations 5 may join that particular game,</u> although coins or tokens may be inserted so as to prepare a non-operative play station for the next game." [4:44-52]
17	means within the computer for transmitting the reconfiguration command to one of the preselected gaming devices;	In the Mecca Leisure system, when a winning combination is claimed, the display of the number in the box 56 on all of the screens of play stations flashes to signify a claimed win, which means that a command is issued by the control unit to one of the "preselected" play stations to flash the number in the box 56.
18	means within each gaming device for receiving the reconfiguration command transmitted to the gaming device; and	Each of the "preselected" play stations is responsive to a claim of a winning combination, a predetermined event. The patent states: "When a winning combination is claimed by operation of one of the call switches 55, the display on the display unit 19 flashes, as does the display of the number in the box 56 on all of the screens of the play stations to signify a claimed win." [4:86-91]
19	means within each	The player at the winning play station is paid by credits at the play

1 gaming device for
2 reconfiguring the
3 gaming device
4 responsive to the
5 received
6 reconfiguration
7 command, wherein
8 the gaming device
9 pays a bonus in
10 accordance with the
11 received
12 reconfiguration
13 command.

station. The screen 50 at each of the play stations shows the credits obtained. The Mecca Leisure patent states: "[T]he display provided by all of the play stations 5 has the format shown in Figure 5, this format comprising information which is thus common to all of the play stations.... Below this is information concerning the price of each game, the stake paid, and any credits obtained." [3:71-85] In addition, the "control unit performs various 'housekeeping' functions and, in particular, supplies information to a cashier on the screen 11, such as ... the total 'credits' from wins...." [4:103-107] Since the control unit is responsible for supplying information regarding "credits for wins," it is clear that it also supplies the play stations with the credit information.

8
9 As such, the system described in the Mecca Leisure patent is the same as the invention
10 specified in claim 1 of the '459 patent. In addition, the Mecca Leisure patent describes fully the
11 subject gaming system and someone knowledgeable with respect to designing gaming systems
12 would be able to construct the device from reading the Mecca Leisure patent.

13
14 Claim 1 of the '459 Patent and United States Patent No. 4,652,998

15
16 I have also reviewed United States Patent No. 4,652,998 (the '998 patent) issued to Koza
17 et al. on March 24, 1987 and filed on January 4, 1984. The '998 patent describe a video
18 amusement gaming system with pool prize structures including remote game terminals and a
19 central controller with two-communications between the remote game terminals and the central
20 controller. Prize awards are based upon random shuffling of a set of prize awards among a
21 predetermined pool of plays for each remote game terminal. The shuffling of prizes is based upon
22 a random seed produced either by the remote terminal of the central controller or by both. The
23 '998 patent describes the invention described in claim 1 of the '459 patent. The following table
24 compares the '998 patent with Claim 1 of the '459 patent:

25 **TABLE 2**

'459 Patent, Claim 1	United States Patent No. 4,652,998 (the '998 patent)
A system for operating a plurality of gaming devices, the system comprising:	The '998 patent states: " <u>Each remote terminal 20</u> is coupled, as shown, by a communication medium 22 to a central controller 24, which is primarily comprised of a computer.... The central controller 24 maintains supervision over the <u>entire network of</u>

1		remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4]
2		
3	a host computer, said host computer including means for generating a reconfiguration command;	The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a <u>central controller 24</u> , which is primarily comprised of a computer.... The <u>central controller 24</u> maintains supervision over the entire network of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4]
4		
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6	a user-operated input device connected to said host computer;	The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a communication medium 22 to a <u>central controller 24</u> , which is primarily comprised of a <u>computer</u> The <u>central controller 24</u> maintains supervision over the entire network of remote terminals 20 <u>handling, for example, validation, security, and seeding of pools, among other tasks.</u> " [2:53 to 3:4]
7		
8		
9	a network interconnecting the gaming devices to the host computer;	The '998 patent states: "Each remote terminal 20 is coupled, as shown, by a <u>communication medium 22</u> to a central controller 24, which is primarily comprised of a computer.... The central controller 24 maintains supervision over the <u>entire network</u> of remote terminals 20 handling, for example, validation, security, and seeding of pools, among other tasks." [2:53 to 3:4]
10		
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13	means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device;	The '998 patent states: "The central control of the lottery system permits a number of unique system capabilities. One such capability is an electronic market survey. <u>The sophisticated centrally controlled lottery system can draw a random sampling of players who can be asked to participate in the survey.</u> In the electronic marketing survey a free game play is offered on the remote terminal if the player will answer a few, simple market survey questions. This, on a random, or other basis a predetermined number of plays in each mini-pool are selected as market survey free plays. The remote terminal displays on the video monitor the offer of a free game in exchange for answers to the market questions and allows the player to accept or reject the offer. Assuming the offer is accepted the basic questions, preferably yes-no questions, are displayed beginning with marital status, and sex, followed by questions about lottery use, level of education, age, location, etc. The player answers the questions using the player control devices 57. A speech recognition unit is particularly suitable for input of survey answers. This market survey could also be sold to others to permit market surveys relating to other than lottery markets. At the conclusion of the questions, a free game is provided." [22:60-23:15]
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24	means within the computer for transmitting the reconfiguration command to one of the preselected gaming devices;	The computer is in constant communications with the terminals (gaming devices) receiving status and other data and sending various data including commands to reconfigure the gaming devices. For example, Figure 6 shows the central computer, having data lines 22 connected to the modems 178 as the means for communications and transmission of data and commands.
25		
26		
27		According to column 22 of the '998 patent, the "central controller 24 performs a number of major lottery management functions including lottery prize pool maintenance" [22:28-30]. Also, the
28		

1		central computer "draw[s] a random sampling of players who can be asked to participate in an electronic marking survey. In the electronic marketing survey a free game play is offered on the remote terminal." [22:62-66]. Thus, the central computer must send command to the gaming devices to play the free game.
4	means within each gaming device for receiving the reconfiguration command transmitted to the gaming device; and	Figure 3A shows the means for communicating with the central controller as the Terminal Controller 70 and the network line 22. Command is received by the gaming device to offer the free game as commanded by the central controller. See [22:62-66].
7	means within each gaming device for reconfiguring the gaming device responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance with the received reconfiguration command.	Each gaming devices has Game Logic 51 (see Fig. 6) and the Control Logic 52 as the means to reconfigure the gaming device. The gaming device performs the pay functions. [Fig. 3A and columns 6-7]. However, "[T]he central controller performs a number of major lottery management functions including lottery prize pool maintenance and lottery performance reporting" [22:28-31] including offering free game. [22:62-66].

As such, the system described in the '998 patent is the same as the invention specified in claim 1 of the '459 patent. In addition, the '459 patent describes fully the subject gaming system and someone knowledgeable with respect to the designing gaming systems would be able to construct the device from reading the '459 patent.

Claim 1 of the '459 Patent and Acres's Own SB-2 Statement it Filed with the SEC

It also appears that on September 20, 1993, Acres files an "SB-2" statement with the SEC that described fully the invention described in claim 1 of the '459 Patent. The SB-2 statement describes an Acres gaming system called "Concept III" that comprises "five products," including "casino accounting, player tracking, progressive jackpot systems for table games, progressive jackpot systems for gaming machines, and bonusing systems." As described in the SB-2 statement; "Concept III and its component products are a modular, integrated system. The casino accounting, player tracking and game promotion modules can be purchased and installed individually or as components of an integrated system."

1 The SB-2 further states that a "Concept III installation includes electronic hardware
2 installed in the slot machines, personal computers that serve as controllers for groups of slot
3 machines, and software to record and analyze data, generate reports to casino management, and
4 operate progressive jackpot and bonusing systems." The SB-2 also explains that "Concept III
5 employs personal computer technology, and is designed to take advantage of future improvements
6 in such technology."

7 With respect to the Contempt III progressive jackpot system for gaming machines product.
8 the SB-2 describes the product as follows:

9 A progressive jackpot system links a number of slot machines to generate a
10 collective jackpot. As coins are played in the machines, a portion of each coin is
11 allocated to the creation of the jackpot. Other progressive jackpot systems require
12 a controller to be installed at the same location as the machines that are linked to
13 the jackpot. In contrast, a Concept III progressive jackpot system is programmed
14 remotely from a personal computer. This method of programming enables the
15 casino manager to determine which machines are linked to the progressive jackpot,
16 and to establish various parameters such as starting jackpot amounts, rates of
17 increment, and limits, if any, on the jackpot. The flexibility provided by Concept
18 III enables the casino manager to design, alter and readily implement new
19 progressive jackpot promotions which may be created from time to time.

20 A table comparing the content of the SB-2 statement against the elements of Claim 1 of
21 the '459 Patent is set forth below.

22 **TABLE 3**

23 '459 Patent, Claim 1	Acres's SB-2 Statement Filed with SEC on September 20, 1993
24 A system for operating a plurality of gaming devices, the system comprising:	Acres's SB-2 statement states that "personal computers...serve as <u>controllers for groups of slot machines</u> ." It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer."
25 a host computer, said host computer including means for generating a reconfiguration command;	Acres's SB-2 statement states that " <u>personal computers...serve as controllers</u> for groups of slot machines." It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer."
26 a user-operated input device connected to said host computer;	Acres's SB-2 statement states that " <u>personal computers...serve as controllers</u> for groups of slot machines." It also provides that "a Concept III progressive jackpot system is <u>programmed remotely from a personal computer</u> ." Personal computers include keyboards for user-operated input. In fact, Acres' '459 patent shows a keyboard of a personal computer as the input device.
27 a network interconnecting the gaming devices to the	The SB-2 statement and the Concept III Brochure clearly describe, in multiple places, a personal computer networked with

1	host computer;	a plurality of gaming devices.
2	means for preselecting less	Acres's SB-2 statement states that "programming [the Concept III progressive jackpot system remotely from a personal computer] <u>enables the casino manager to determine which machines are linked to the progressive jackpot.</u> "
3	than all of the gaming	
4	devices interconnected to	
5	the host computer	The SB-2 states that "Concept III, with its ability to <u>deliver instructions to the slot machine</u> , enables the casino to automate the payment of and accounting for double jackpot and other bonus programs." Inherently, the payment instructions to be delivered to the slot machine must come from a " <u>personal computers...serve as controllers</u> for groups of slot machines."
6	responsive to user-effected	
7	action at said input device;	
8	means within the computer	By definition, a "progressive jackpot" is won by a player playing at a "machine...linked to the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, <u>enables the casino to automate the payment of and accounting for double jackpot and other bonus programs.</u> "
9	for transmitting the	
10	reconfiguration command	
11	to one of the preselected	By definition, a "progressive jackpot" is paid to the player who wins the jackpot." The SB-2 further states that "Concept III, with its ability to deliver instructions to the slot machine, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs."
12	gaming devices;	
13	means within each gaming	
14	device for receiving the	
15	reconfiguration command	
16	transmitted to the gaming	
17	device; and	
18	means within each gaming	
19	device for reconfiguring	
20	the gaming device	
21	responsive to the received	
22	reconfiguration command,	
23	wherein the gaming device	
24	pays a bonus in accordance	
25	with the received	
26	reconfiguration command.	

As of the time it was published in September 1993, the disclosure of the SB-2 was sufficient to enable a person skilled in the art of designing gaming systems to construct a device meeting claim 1 of the '459 patent. It is clear from the SB-2 statement that a computer network is being discussed. Computer networks were well known in the art and one it was determined to build the system, it would be a simple matter of programming to complete it.

Claim 1 of the '459 Patent and Acres's Own Concept III Brochures

I have also reviewed a "Concept III" brochure that I understand was circulated in the gaming industry. The Concept III brochure teaches the method described in Claim 1 of the "459 patent.

TABLE 4

1	'459 Patent, Claim 1	Acres's Concept III Brochure
2	A system for operating a plurality of gaming devices, the system comprising:	The figure in the Concept III brochure depicts <u>gaming devices</u> interconnected to a host computer. It also states that "the system is programmed from a personal computer." [p.3]
3		
4	a host computer, said host computer including means for generating a reconfiguration command;	The figure in the Concept III brochure depicts gaming devices interconnected to <u>a host computer</u> . It also states that "the system is <u>programmed from a personal computer</u> ." [p.3] Personal computers have means (CPU, memory, etc.) To generate various commands to be sent to devices it is connected with.
5		
6	a user-operated input device connected to said host computer;	The figure in the Concept III brochure depicts gaming devices interconnected to <u>a host computer</u> . It also states that "the system is <u>programmed from a personal computer</u> ." [p.3] Personal computers typically have keyboards, mice, and other input devices.
7		
8		Further, the brochure states "[y]ou simply <u>type in</u> which machines are connected to which links and describe the starting jackpots amounts, increment rates, limits if any, etc." [p. 3]. "Typ[ing] in" implies a computer keyboard.
9		
10	a network interconnecting the gaming devices to the host computer;	The figure in the Concept III brochure depicts gaming devices <u>interconnected/networked</u> to a host computer.
11		
12	means for preselecting less than all of the gaming devices interconnected to the host computer responsive to user-effected action at said input device;	The Concept III brochure states: "You select which machines are used in which promotions, connect your signage and information displays (if any) and begin operation. Concept III allows any number of different promotions to operate simultaneously." [p.2] "AutoScan provides full accounting of bonus payments and requires no human intervention for bonus award payments." [p. 2]
13		
14	means within the computer for transmitting the reconfiguration command to one of the preselected gaming devices;	"Concept III automates double jackpot payments by <u>causing</u> the machine hopper to pay bonus amounts." [p. 2] "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to <u>tell the machine to pay money</u> from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even <u>command the machine to pay</u> all jackpots at two or three times the normal rate and communicate with customers through displays mounted on the machine." [p. 1-2]
15		
16	means within each gaming device for receiving the reconfiguration command transmitted to the gaming device; and	"Concept III automates double jackpot payments by <u>causing</u> the machine hopper to pay bonus amounts." [p. 2] "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to <u>tell the machine to pay money</u> from the hopper, place extra credits on the credit meter or allow play without depositing coins. AutoScan can even <u>command the machine to pay</u> all jackpots at two or three times the normal rate and communicate with customers through
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	displays mounted on the machine." [p. 1-2]
means within each gaming device for reconfiguring the gaming device responsive to the received reconfiguration command, wherein the gaming device pays a bonus in accordance with the received reconfiguration command.	"Concept III automates double jackpot payments by <u>causing</u> the machine hopper to pay bonus amounts." [p. 2] "We have developed new communication protocols with Bally and IGT that allow the AutoScan module to <u>tell the machine to pay money from the hopper</u> , place extra credits on the credit meter or allow play without depositing coins. AutoScan can even <u>command the machine to pay</u> all jackpots at two or three times the normal rate and communicate with customers through displays mounted on the machine." [p. 1-2]

Claim 4 of the '459 Patent

Claim 4 of the '459 Patent is anticipated by and/or rendered obvious by each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) for the same reasons for which Claim 1 of the '459 Patent is anticipated by the same references. In addition, Tables 5, 6, 7, and 8 below compare Claim 4 to the four references.

TABLE 5

'459 Patent, Claim 4	Mecca Leisure Patent No. GB 2151 054 A
A system for operating a plurality of gaming devices according to claim 1	See Table 1, <i>supra</i> .
wherein the host computer comprises at least one floor controller.	"Figure 3 is a block diagram of a <u>control apparatus</u> or a <u>central unit</u> of the system of Figure 1;" [2:38-40]. "The system comprises a <u>control unit</u> 3 disposed adjacent a raised platform 4 and <u>connected to a plurality of player stations</u> 5." [2:48-51].

TABLE 6

'459 Patent, Claim 4	United States Patent No. 4,652,998 (the '998 patent)
A system for operating a plurality of gaming devices according to claim 1	See Table 2, <i>supra</i> .
wherein the host computer comprises at least one floor controller.	"[A] gaming system having a <u>central controller</u> and a <u>plurality of remote terminals</u> each operable for playing a game, a prize distribution system." [24:52-54, Claim 1].

"The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible <u>personal computers</u> ." [7:28-30].	"Each remote terminal 20 is coupled, as shown, by a communications medium 22 to a <u>central controller 24</u> , which is <u>primarily comprised of a computer</u> ." [2:53-55].
---	--

TABLE 7

'459 Patent, Claim 4	SB-2 Statement Acres Filed with SEC on September 20, 1993
A system for operating a plurality of gaming devices according to claim 1	See Table 3, <i>supra</i> .
wherein the host computer comprises at least one floor controller. "The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible <u>personal computers</u> ." [7:28-30].	Acres's SB-2 statement states that "personal computers...serve as <u>controllers for groups of slot machines</u> ." [p. 16]. It also provides that "a Concept III progressive jackpot system is programmed remotely from a personal computer." [p. 19].

TABLE 8

'459 Patent, Claim 4	Acres's Concept III Brochure
A system for operating a plurality of gaming devices according to claim 1	See Table 4, <i>supra</i> .
wherein the host computer comprises at least one floor controller. "The floor controllers 18 and 28 are, in the preferred embodiment, IBM-compatible <u>personal computers</u> ." [7:28-30].	The figure in the Concept III brochure depicts gaming devices interconnected to a <u>host computer</u> . It also states that "the system is <u>programmed from a personal computer</u> ." [p. 3].

As such, the systems described in each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) are the same as the invention specified in claim 4 of the '459 patent. In addition, each of the four cited references, individually and in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading any one of the four cited references.

Claim 8 of the '459 Patent

Claim 8 of the '459 Patent is anticipated by and/or rendered obvious by each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) for the same reasons for which Claim 1 of the '459 Patent is anticipated by the same references. In addition, Tables 9, 10, 11, and 12 below compare Claim 8 to the references.

TABLE 9

'459 Patent, Claim 8	Mecca Leisure Patent No. GB 2151 054 A
A system for operating a plurality of gaming devices according to claim 1	See Table 1, <i>supra</i> .
wherein the means <u>within each gaming device</u> for receiving the reconfiguration command transmitted to the gaming device comprises <ul style="list-style-type: none"> a <u>data communication node</u> coupled to the network and coupled to the <u>serial interface</u> of the associated gaming device, wherein the data communication node monitors the transmissions on the network and <u>determines which transmission</u> is transmitted to the associated gaming device. 	"A <u>bi-directional interface</u> 30 which <u>controls transfer</u> of data between the bus 18 and a central processing unit (CPU) 31. The interface 30 converts between the balanced signals, for instance having an amplitude of 24 volts, on the bus 18 and the logic level signals of the CPU 31, and also converts between <u>serial data flow</u> for the bus 18 and parallel data flow for the CPU 31." [3:5-14]. This interface <u>is within each gaming machine</u> . See Fig. 3.

TABLE 10

'459 Patent, Claim 8	United States Patent No. 4,652,998 (the '998 patent)
A system for operating a plurality of gaming devices according to claim 1	See Table 2, <i>supra</i> .
wherein the means <u>within each gaming device</u> for receiving the reconfiguration command transmitted to the gaming device comprises <ul style="list-style-type: none"> a data communication node coupled to the network and coupled to the <u>serial interface</u> of the associated gaming device, wherein the data communication node monitors the transmissions on the network and <u>determines which transmission</u> is transmitted to the associated gaming device. 	"The terminal controller 70, shown in FIG. 3A, is a separate, secure unit <u>within the remote terminal</u> housing 32 which <u>controls all communications</u> in a secure manner to and from the central controller 24 (see FIG. 1)." [6:19-22]. "The modem 142 is coupled through a conventional <u>serial communicator</u> 144 to the terminal controller processor 150, as shown. In addition, the cable 68 is coupled from the game controller 50 (see FIG. 3) through conventional input protection circuitry 146 to a standard <u>RS232</u> [standard serial communications] <u>interface</u> 148 to permit communications between the

	terminal controller 70 and the game controller 50. The interface 148 couples signals through the <u>serial communicator 144</u> (in the preferred embodiment, comprising Zilog 8440 SIO's) to the terminal controller processor 150, as shown." [9:29-39].
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TABLE 11

'459 Patent, Claim 8	SB-2 Statement Filed with SEC on September 20, 1993
A system for operating a plurality of gaming devices according to claim 1	See Table 3, <i>supra</i> .
wherein the means <u>within each gaming device</u> for receiving the reconfiguration command transmitted to the gaming device comprises <ul style="list-style-type: none"> a data communication node coupled to the network and coupled to the serial interface of the associated gaming device, wherein the data communication node monitors the transmissions on the network and <u>determines which transmission is transmitted to the associated gaming device.</u> 	<p>The SB-2 discusses installing hardware in the slot machines to enable the machines to receive data from the system. One of the most common standard, at the time of the patent application, for data communications on a network or between devices is the RS232 serial communications protocol.</p> <p>"A Concept III installation includes electronic <u>hardware installed in the slot machines.</u>" [p. 16].</p> <p>"The primary manufacturers of slot machines, ..., are making extensive changes to the software used in their machines to the Concept III system technology. The changes will permit the <u>slot machines to accept instructions</u> from the Concept III system." [p. 17].</p> <p>"In contrast, a Concept III progressive jackpot system is <u>programmed remotely from a personal computer.</u>" [p. 18].</p> <p>"Concept III, with its ability to <u>deliver instructions to the slot machines, ...</u>" [p. 18].</p>

TABLE 12

'459 Patent, Claim 8	Acres's Concept III Brochure
A system for operating a plurality of gaming devices according to claim 1	See Table 4, <i>supra</i> .
wherein the means <u>within each gaming device</u> for receiving the reconfiguration command transmitted to the gaming device comprises <ul style="list-style-type: none"> a <u>data communication</u> node coupled to the network and coupled to the <u>serial interface</u> of the associated gaming device, wherein the data communication 	<p>"Electronic module, called AutoScan, is <u>installed in each slot machines.</u> [p. 1].</p> <p>"Our system includes ... including the most advanced units with '<u>serial interfaces</u>'. [Data Collection section, p. 2].</p> <p>"The [Autoscan] module counts Coins In, Coins Out, ... and other functions. ... The AutoScan module's <u>increased power</u> allows it to work with the machines in ways never</p>

node monitors the transmissions on the network and determines which transmission is transmitted to the associated gaming device.

before possible. ... These advanced features make possible such promotions as Double Jackpot Time, Bonus payouts, ... and others." [pp.1-2].

As such, the systems described in each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) are the same as the invention specified in claim 8 of the '459 patent. In addition, each of the four cited references, individually and in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading any one of the four cited references.

Claim 15 of the '459 Patent

Claim 15 of the '459 Patent is anticipated by and/or rendered obvious by each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) for the same reasons for which Claim 1 of the '459 Patent is anticipated by the same references. In addition, Tables 13, 14, 15, and 16 below compare Claim 15 to the references.

TABLE 13

'459 Patent, Claim 15	Mecca Leisure Patent No. GB 2151 054 A
The system of claim 1	See Table 1, <i>supra</i> .
wherein said system further includes • <u>means for transmitting data</u> related to the level of play at each gaming device to <u>said host computer</u> and wherein • <u>said host computer includes data stored therein</u> defining criteria related to a preselected level of play. <i>"preselected level of play" is not defined by the Specification of the '459 patent.</i>	"The control unit 3 [host computer] is connected to the player station 5 (labelled 1 to n in Figure 2) by a multidrop serial bus 18." [2:83-85]. "[T]he control unit includes a <u>game storage area</u> 10 in which the programmer or software for a plurality of different games for use in the system are stored." [2:60-65].

TABLE 14

'459 Patent, Claim 15	United States Patent No. 4,652,998 (the '998 patent)
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1	The system of claim 1	See Table 2, <i>supra</i> .
2	wherein said system further includes	"Each remote terminal 20 is coupled, as shown, by a
3	• means for transmitting data	<u>communications medium</u> 22 to a central controller 24,
4	related to the level of play at each	which is primarily comprised of a computer." [2:53-
5	gaming device to said host computer	55].
6	and wherein	
7	• said host computer includes	"At least one conventional hard disk storage device
8	data stored therein defining criteria	182 (e.g. Fujitsu "Eagle" M2284 disk drive) is
9	related to a preselected level of play.	coupled to each of the parallel computers 180, as
10		shown, for data and file storage." [21:21-24].

TABLE 15

11	'459 Patent, Claim 15	SB-2 Statement Filed with SEC on September 20, 1993
12	The system of claim 1	See Table 3, <i>supra</i> .
13	wherein said system further	Acres's SB-2 statement states that "personal
14	includes	computers...serve as controllers for groups of slot
15	• means for transmitting data	machines." [p. 16]. It also provides that "a Concept III
16	related to the level of play at each	progressive jackpot system is programmed remotely from
17	gaming device to said host	a personal computer." [p. 17]. Further, the Concept III
18	computer and wherein	system "enables a casino to monitor the promotions to
19	• said host computer	those players." [p. 16]. This indicates that there are
20	includes data stored therein	means for transmitting data from the gaming devices to
21	defining criteria related to a	the host computer.
22	preselected level of play.	
23		The host computer is a "personal computer," [p. 16],
24		which always include data storage means.

TABLE 16

25	'459 Patent, Claim 15	Acres's Concept III Brochure
26	The system of claim 1	See Table 4, <i>supra</i> .
27	wherein said system further includes	Figure on p. 1 of Acres's Concept III Brochure
28	• means for transmitting data related	shows " <u>Four Wire Cable</u> " connected for
29	to the level of play at each gaming device	transmitting data from the gaming devices to floor
30	to said host computer and wherein	controllers, and " <u>High Speed Ethernet Network</u> "
31	• said host computer includes data	from the floor controllers to personal computers.
32	stored therein defining criteria related to a	
33	preselected level of play.	The host computer is a "personal computer," [p.
34		16], which always include data storage means.

As such, the systems described in each of the four cited references (Mecca Leisure patent, the '998 patent, the SB-2 document, and the Concept III brochure) are the same as the invention specified in claim 15 of the '459 patent. In addition, each of the four cited references, individually and in combination, fully describe the subject gaming system, and someone

1 knowledgeable with respect to designing gaming systems would be able to construct the device
2 from reading any one of the four cited references.

3 Claim 16 of the '459 Patent

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5 Claim 16 of the '459 patent is anticipated by and/or rendered obvious by Acres's own SB-
6 2 statement it filed with the SEC and Acres's own Concept III Brochures. Claim 16 of the '459
7 patent is also rendered obvious by Mecca Leisure Patent and United States Patent No.5,242,163.
8 Tables 17 and 18 compare Claim 16 to Acres's own SB-2 statement it filed with the SEC and
9 Acres's own Concept III Brochures. Table 19 compares Claim 16 to the Mecca Leisure Patent
10 and the '163 patent.

12 **TABLE 17**

13 '459 Patent, Claim 16	SB-2 Statement Filed with SEC on September 20, 1993
14 The system of claim 15	See Table 15, <i>supra</i> .
15 wherein said host 16 computer includes • means for 17 preventing 18 <u>transmission</u> of a 19 reconfiguration 20 command to a selected one of said gaming 21 devices unless the <u>level</u> 22 <u>of play meets said</u> 23 <u>stored criteria</u> .	The ability to transmit commands also imply the ability to not transmit, or prevent transmission of, the commands: "Concept III, with its ability to <u>deliver instructions</u> to the slot machines, enables the casino to automate the payment of and accounting for double jackpot and other bonus programs. In addition, the Concept III technology allows a double jackpot or other bonus program to operate on a random basis, or to operate <u>only when a minimum level of activity is present</u> ." [p. 18]. "The changes will permit the slot machines to accept instructions from the Concept III system, primarily in connection with the bonusing system module." [p.17]. "This method of programming enables the casino manager to determine which machines are to be linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot." [p. 18].

24 **TABLE 18**

25 '459 Patent, Claim 16	Acres's Concept III Brochure
26 The system of claim 15	See Table 16, <i>supra</i> .
27 wherein said host computer 28 includes • means for <u>preventing</u>	For transmission of commands, various cables and data cables, including, Ethernet, is used to send signals over "serial interfaces." [Data Collection System p. 2, 4].

1 transmission of a reconfiguration
2 command to a selected one of said
3 gaming devices unless the level of
4 play meets said stored criteria.

5 "Examples of Reconfiguration
6 commands [are] 1. Bonus Pay
7 From Hopper (Coin Format) 2.
8 Bonus Pay to Credit Meter (Coin
9 Format)" [23:42-45 of the '459
10 Specification].

Inherent in the ability to "cause" payments using the
networked system is the means for transmission of or
preventing the transmission of reconfiguration command
to pay.

"Concept III automates double jackpot payments by
causing the machine hopper to pay bonus amounts." [p.2].

"Concept III lets you set minimum activity levels required
to be eligible for double jackpots. ... - for example, at least
20 coins played over the last three minutes." [p.3].

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TABLE 19

'459 Patent, Claim 16

Mecca Leisure Patent No. GB 2151 054 A; and United States
Patent No.5,242,163

The system of claim 15

See Table 13, *supra*.

wherein said host
computer includes
• means for
preventing transmission of
a reconfiguration
command to a selected one
of said gaming devices
unless the level of play
meets said stored criteria.

Sending of commands or preventing the transmission of
commands is inherent in connection of central controllers and
plurality of gaming devices. For example, the Mecca Leisure
patent states that "[t]here is provided a system for playing a
game, comprising a central apparatus and a plurality of remote
uncommitted programmable apparatuses, each of the remote
apparatuses being arranged to receive at least part of a game
program from the central apparatus." [Mecca Leisure, 1:13-18].

The '163 patent expresses the ability to transmit or not transmit
as follows: "[T]he communication between the control station 80
and each gaming device 10 is established through electrical wires
40." [3:64-65].

Further, the control station of the '163 patent may have, as its
"level of play" criteria to allow the player to play the second
game, a requirement that the player be "already playing a first
game on a gaming device 10 to participate in the second game."
[5:50-55]. It would be obvious to modify the Mecca Leisure
patent with the '163 patent criteria.

As such, the systems described in two of the cited references (the SB-2 document, and the
Concept III brochure) are the same as the invention specified in claim 16 of the '459 patent. In
addition, each of these two cited references, individually and in combination, fully describe the
subject gaming system, and someone knowledgeable with respect to designing gaming systems
would be able to construct the device from reading any one of these two cited references.
Moreover, the Mecca Leisure Patent and the '163 patent, in combination, fully describe the

subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading these two cited references.

Claim 18 of the '459 Patent

Claim 18 of the '459 patent is anticipated by and/or rendered obvious by Acres's own SB-2 statement it filed with the SEC and Acres's own Concept III Brochures. Claim 18 of the '459 patent is also rendered obvious by Mecca Leisure Patent and United States Patent No.5,242,163. Tables 20 and 21 compare Claim 16 to Acres's own SB-2 statement it filed with the SEC and Acres's own Concept III Brochures. Table 22 compares Claim 16 to the Mecca Leisure Patent and the '163 patent.

TABLE 20

'459 Patent, Claim 18	SB-2 Statement Filed with SEC on September 20, 1993.
The system of claim 16	See Table 17, <i>supra</i> .
wherein said criteria relates to the <u>rate at which coins are played</u> .	The rate of coin-play is commonly know as the "activity level" and is discussed on p. 18 of the SB-2 filing: "In addition, the Concept III technology allows a double jackpot or other bonus program to operate on a random basis, or to operate <u>only when a minimum level of activity is present</u> ." [p. 18].

TABLE 21

'459 Patent, Claim 18	Acres's Concept III Brochure
The system of claim 16	See Table 18, <i>supra</i> .
wherein said criteria relates to the <u>rate at which coins are played</u> .	"Concept III lets you set minimum activity levels required to be eligible for double jackpots. ... - for example, <u>at least 20 coins played over the last three minutes</u> ." [p.3].

TABLE 22

'459 Patent, Claim 18	Mecca Leisure Patent No. GB 2151 054 A; and United States Patent No. 5,242,163
The system of claim 16	See Table 19, <i>supra</i> .
wherein said criteria relates to the rate at which coins are played.	In the '163 patent, the criteria relates to the rate at which coins are played because the criteria is that the player eligible to play the second game is already playing the first game. In other words, the criteria is that the rate of coins being played is not zero: "Accordingly, the casino gaming system can be configured to only allow <u>people who were already playing a first game</u> on a gaming device 10 to participate in the second game. ... Of course, it is within the scope of the present invention, and well within the skill of those skilled in the art, to require <u>input of some monetary value</u> , either in the <u>form of coins or credits</u> , before allowing players to participate in the second game." [5:49-61].

As such, the systems described in two of the cited references (the SB-2 document, and the Concept III brochure) are the same as the invention specified in claim 18 of the '459 patent. In addition, each of these two cited references, individually and in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading any one of these two cited references. Moreover, the Mecca Leisure Patent and the '163 patent, in combination, fully describe the subject gaming system, and someone knowledgeable with respect to designing gaming systems would be able to construct the device from reading these two cited references.

Finally, in addition to the above-discussed publications and prior references, at the time the '459 patent was filed, there were several networked slot accounting and player tracking systems on the market each of which would have met most, if not all, of the claims in the '459 patent. Furthermore, anyone moderately skilled in the art at the time could have constructed the system described by the '459 patent with relative ease. In short, the system described by the '459 patent was fully disclosed in various prior art or published references at the time it was filed.

1
2 **THE '817 PATENT**
3

4 **Claim 1 of The '817 Patent**

5 Claim 1 of the '817 Patent is reproduced below:

6 1. A method of operating gaming devices interconnected by a computer
7 network to a host computer comprising:

8 selecting a plurality of the gaming devices;

9 using the network to track the amount of money played on the selected
gaming devices;

10 allocating a predetermined percentage of the money played to a bonus pool;

11 issuing a command over the network including data establishing criteria to
12 cause a bonus to be paid from the pool via one of said selected gaming devices
upon the occurrence of a predetermined event;

13 storing the command in a memory connected to a controller associated with
14 only one of the gaming devices;

15 transmitting data indicative of gaming device activity from the gaming
device to the controller;

16 transmitting a pay command from the controller to the gaming device upon
17 the occurrence of the predetermined event; and

18 paying the bonus via the gaming device responsive to receipt of the pay
command.

19
20 Even after a careful examination of Claim 1, I could not discern the alleged inventive
21 method as recited by Claim 1 because Claim 1 is unintelligible, ambiguous, and the Specification
22 of the '817 Patent has no explanation or support for critical sections of Claim 1.

23 For example, the step requiring the "issu[ance] of a command over the network including
24 data establishing criteria to cause a bonus to be paid from the pool via one of said selected gaming
25 devices upon the occurrence of a predetermined event" is ambiguous. It is not clear what the
26 "data establishing criteria to cause a bonus to be paid" is. And, the relationship between that data
27 and the "predetermined event" is undefined. Moreover, the Specification of the '817 Patent does
28 not explain or describe these elements or this step. In fact, a careful examination of the

1 Specification of the '817 Patent shows that the Specification completely fails to explain or discuss
2 this limitation.

3 In addition, the step requiring the "stor[age of] the command in a memory connected to a
4 controller associated with only one of the gaming devices" is unintelligible. It is not clear where
5 or how the "command" is stored. In the Specification, only "programs, instructions, and gaming
6 device information" are stored in controller memory. [See 9:6-33]. Again, the Specification fails
7 to explain, discuss, or provide any support for this clause or for Claim 1.

8 Furthermore, for example, the step requiring the "stor[age of] the command in a memory
9 connected to a controller associated with only one of the gaming devices" is unintelligible.
10 Throughout the entire Specification of the '817 Patent, the controller is shown (in Figures) and
11 discussed (in the written Specification) as being connected to "a plurality of gaming devices."
12 There are no "controller associated with only one of the gaming device" in the alleged invention.

13 However, if Claim 1 were some how construed to cover Mikohn's products, Claim 1
14 would be anticipated by and/or rendered obvious by the prior art references discussed above for
15 the same or similar reasons.

16
17 Claim 21 of The '817 Patent Is Unintelligible, Ambiguous, Anticipated, And Obvious

18 Claim 21 of the '817 Patent is reproduced below:

19 21. A method of operating gaming devices interconnected by a computer
20 network to a host computer comprising:

21 selecting a plurality of the gaming devices;

22 issuing a command over the network including data establishing criteria to
23 cause a bonus to be paid via one of said selected gaming devices upon the
24 occurrence of a predetermined event;

25 storing the command in a memory connected to a controller associated with
26 only one of the gaming devices;

27 transmitting data indicative of gaming device activity from the gaming
28 device to the controller;

transmitting a pay command from the controller to the gaming device upon
the occurrence of the predetermined event; and

paying the bonus via the gaming device responsive to receipt of the pay
command.

1
2 Claim 21 suffers from all the ambiguity and uncertainty problems of Claim 1 and is
3 therefore unintelligible. However, if Claim 21 were some how construed to cover Mikohn's
4 products, Claim 21 would be anticipated by and/or rendered obvious by the prior art references
5 discussed above for the same or similar reasons.

6
7 Claim 24 of The '817 Patent Is Unintelligible, Ambiguous, Anticipated, And Obvious

8 Claim 24 of the '817 Patent is reproduced below:

- 9 24. A method of operating gaming devices interconnected by a computer network to a
10 host computer comprising:
11 selecting a plurality of the gaming devices;
12 using the network to track the amount of money played on the selected gaming
13 devices;
14 allocating a predetermined percentage of the money played to a bonus pool;
15 initiating a bonus period after the bonus pool exceeds a predetermined level;
16 providing data establishing criteria to cause a bonus to be paid from the pool via
17 one of said selected gaming devices upon the occurrence of a predetermined event;
18 storing the data in a memory connected to a controller associated with only one of
19 the gaming devices;
20 transmitting data indicative of gaming device activity from the gaming device to
21 the controller;
22 initiating the bonus period;
23 transmitting a pay command from the controller to the gaming device upon the
24 occurrence of the predetermined event; and
25 paying the bonus via the gaming device responsive to receipt of the pay command.

26 Claim 24 also suffers from all the ambiguity and uncertainty problems of Claims 1 and 21
27 and is therefore unintelligible.

28 In addition to the same problems as Claims 1 and 21, Claim 24 is unintelligible for
additional reasons. For example, the step requiring the "stor[age of] the [criterion] data in a
memory connected to a controller associated with only one of the gaming devices" is
unintelligible. It is not clear where or how the "criterion data" is stored. In the Specification, only

1 "programs, instructions, and gaming device information" are stored in controller memory. [See
2 9:6-33]. Yet again, the Specification fails to explain, discuss, or provide any support for this
3 clause or for Claim 24.

4 Moreover, Claim 24 contradicts itself. It first includes a step calling for an "initiati[on of]
5 a bonus period after the bonus pool exceeds a predetermined level." Then, Claim 24 includes a
6 step of "initiating the bonus period" having no conditions or further limitations. Needless to say,
7 this double initiation "technique" is not explained or even mentioned in the Specification.

8 However, if Claim 24 were some how construed to cover Mikohn's products, Claim 24
9 would be anticipated by and/or rendered obvious by the prior art references discussed above for
10 the same or similar reasons.

11

12 Claim 29 of The '817 Patent Is Unintelligible, Ambiguous, Anticipated, And Obvious

13 Claim 29 of the '817 Patent is reproduced below:

14 29. The method of claim 24 wherein said predetermined event comprises
15 transmission of a pay command from the host computer to the controller.

16 Claim 29 suffers from all the ambiguity and uncertainty problems of Claim 24 and is
17 therefore unintelligible. In addition, Claim 29 is unintelligible, ambiguous, and has no
18 explanation or support in the Specification of '817 Patent because Claim 29 is nonsensical and
19 circular.

20 Claim 29 is a dependent claim based on independent claim 24. Taken together with claim
21 24, the claim 24-29 combination reads, in part,

22 (from claim 24) transmitting a pay command from the controller to the
23 gaming device upon the occurrence of the predetermined event; and

24 (claim 29) wherein said predetermined event comprises transmission of
a pay command from the host computer to the controller.

25

26 For example, the Specification of the '817 Patent expressly states that "the reconfiguration
27 command originate from floor controller" [23:33-34, emphasis added] where the "examples of
28 Reconfiguration commands [include] Bonus Pay From Hopper (Coin Format)" and "Bonus Pay
From Credit Meter (Coin Format)." [23:42-44]. Claim 29, inconsistently with the Specification,

1 recites the pay command originating from a "host computer" and using the controller as merely a
2 routing medium. Once again, the Specification fails to explain or support this Claim because the
3 Specification does not describe any communication between a host computer and a controller.

4 Moreover, in the Specification, terms "controller" and "host computer" are used
5 interchangeably. For example, at 23:33, the Specification states that "the reconfiguration
6 command originate from floor controller and are transmitted to a particular machine." [23:33-34,
7 emphasis added]. Elsewhere, the Specification has the host computer originating and transmitting
8 the reconfiguration command: "Remote reconfiguration includes sending a reconfiguration
9 command from a host computer to one or more of the gaming devices." [6:37-39, emphasis
10 added]. Then, replacing "*host computer*" with "*controller*", we can rewrite Claim 29 as follows:

11 (from claim 24) transmitting a pay command from the controller to the
12 gaming device upon the occurrence of the predetermined event; and
13 (claim 29) wherein said predetermined event comprises transmission of
14 a pay command from the *controller* to the controller.

15 This is a nonsensical, circular claim where the step ("transmitting a pay command") depends upon
16 itself ("transmission of a pay command") as the triggering event.

17 However, if Claim 29 were some how construed to cover Mikohn's products, Claim 29
18 would be anticipated by and/or rendered obvious by the prior art references discussed above for
19 the same or similar reasons.

20 As of the time it was published in September 1993, the disclosure of the SB-2 was
21 sufficient to enable a person skilled in the art of designing gaming systems to construct a device
22 meeting claims 1, 21, 24 and 29 of the '817 patent. It is clear from the SB-2 statement that a
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1 computer network is being discussed. Computer networks were well known in the art and one it
2 was determined to build the system, it would be a simple matter of programming to complete it.

3 Finally, in addition to the above-discussed publications and prior references, at the time
4 the '817 patent was filed, there were several networked slot accounting and player tracking
5 systems on the market each of which would have met most, if not all, of the claims in the '817
6 patent. Furthermore, anyone moderately skilled in the art at the time could have constructed the
7 system described by the '817 patent with relative ease. In short, the system described by the '817
8 patent was fully disclosed in various prior art or published references at the time it was filed.

9
10 I have not testified as an expert witness previously. I have not published any professional
11 writings other than the three patents identified above. I charge \$125 per hour as an expert in this
12 matter.

13
14 Executed this 6 day of July, 1999.

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17 Michael J. Bennett
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PROOF OF SERVICE

STATE OF CALIFORNIA, COUNTY OF LOS ANGELES

I am employed in the county of Los Angeles, State of California. I am over the age of 18, and not a party to the within action; my business address is Mitchell, Silberberg & Knupp LLP, 11377 West Olympic Boulevard, Los Angeles, California 90064-1683.

On July 6, 1999, I served the foregoing document(s) described as Expert Report of Michael J. Bennett Pursuant To Fed. R. Civ. P. 26(A)(2) on the parties in this action by placing an original thereof enclosed in sealed envelopes addressed as follows, and taking the action described below:

BY U.S. MAIL

Mark Rosencrantz, Esq.
Jolley Urga Wirth & Woodbury
3800 Howard Hughes Parkway, 16th Floor
Wells Fargo Tower
Las Vegas, Nevada 89109

Bruce Benson, Esq.
Casino Data Systems
3300 Birtcher Drive
Las Vegas, Nevada 89118

Robert C. Ryan, Esq.
IAN F. BURNS & ASSOCIATES
P.O. Box 20038
560 East Plumb Lane
Reno, Nevada 89502

BY FEDERAL EXPRESS

Jerry Riedinger, Esq.
Perkins Coie LLP
1201 Third Avenue, 40th Floor
Seattle, Washington 98101-3099

Lawrence M. Jarvis, Esq.
Gregory Schodde, Esq.
McAndrews, Held & Malloy Ltd.
500 West Madison Street, 34th Floor
Chicago, Illinois 60661

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Executed on July 6, 1999, at Los Angeles, California.

I declare under penalty of perjury under the laws of the State of California that the above is true and correct.



Martha Gruft

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DEPT. OF JUSTICE

Bruce W. Benson, Esq.
CASINO DATA SYSTEMS
3300 Birtcher Drive
Las Vegas, Nevada 89118

Lawrence M. Jarvis, Esq.
Gregory C. Schodde, Esq.
MCANDREWS, HELD & MALLOY, LTD.
500 West Madison Street, 34th Floor
Chicago, Illinois 60661
(312) 707-8889

Robert C. Ryan, Esq.
Ian F. Burns, Esq.
IAN F. BURNS & ASSOCIATES
P.O. Box 20038
560 East Plumb Lane
Reno, Nevada 89515-0038

Attorneys for Defendants
CASINO DATA SYSTEMS AND
SUNSET STATION HOTEL AND CASINO

UNITED STATES DISTRICT COURT
DISTRICT OF NEVADA

MIKOHN GAMING CORP.,

Plaintiff,

v.

ACRES GAMING, INC.,

Defendant.

ACRES GAMING, INC.

Plaintiff.

v.

MIKOHN GAMING CORPORATION;
NEW YORK NEW YORK HOTEL &
CASINO, LLC; CASINO DATA
SYSTEMS; and SUNSET STATION
HOTEL & CASINO,

Defendants.

CV-S-97-1383-HDM (LRL)
(Base File)

**EXPERT WITNESS REPORT OF
LEROY A. PROHOFSKY**

1 My name is Leroy Prohovsky. I have been retained as an expert by Defendant Casino
2 Data Systems (CDS) and have been asked to opine as to whether the asserted claims of U.S.
3 Patent 5,752,882 ("the '882 patent") are anticipated by the prior art, whether the asserted
4 claims of the '882 patent would have been obvious to one of ordinary skill in the art at the time
5 of the "invention," and whether any or all of the asserted claims of the '882 patent are
6 otherwise invalid for failure to comply with 35 U.S.C. § 112, e.g., whether the claims of the
7 '882 patent particularly point out and distinctly claim particular subject matter. In addition, I
8 have been asked to opine as to whether the accused CDS product infringes the asserted claims
9 of the '882 patent. I have been asked to submit this report setting forth my opinions and the
10 basis and reasons therefore, the information I considered in forming my opinions, and identify
11 any exhibits used to summarize or support my opinions. I submit this report pursuant to
12 Federal Rules of Civil Procedure 26(a)(2) and this Court's Scheduling Order.
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17 I. EXPERT QUALIFICATIONS

18 1. I am a graduate of the University of Minnesota, Institute of Technology,
19 having received a Bachelor of Science degree in Electrical Engineering, June 1956. Following
20 graduation, I served two years in the United States Navy and was honorably discharged with
21 rank of Lieutenant, Jr. Grade.

22 2. Following my discharge from the service, I was hired as an Electrical Engineer
23 by Remington Rand Univac (later known as the Univac Division of Speery Corporation and
24 even later as the Computer Systems Division of Unisys Corporation). Between August 1958
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1 and September 1961, I was actively engaged in the design of automatic component testing
2 equipment, the performance of miniaturization studies relating to electronic circuits for use in
3 digital data processing equipment, and the design of high speed strip line interconnection
4 systems for a state-of-the-art computer.

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6 3. Between September 1961 and June 1963, I continued to work at Sperry Univac
7 and was promoted to Supervising Engineer in the Advanced Development Department where I
8 engaged in the design and development of an advanced microelectronic aerospace computer.

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10 4. In June 1963, I was promoted to Department Manager of Aerospace Computer
11 Development where I had responsibility for the design of circuits for a computer used in the
12 guidance of a mobile, medium-range, ballistic missile and for the development of new memory
13 and packaging techniques for the company's advanced aerospace computers.

14 5. Between March 1968 and September 1970, I served as the Department Manager
15 for Sperry Univac's Advanced Development Department. In this capacity, I was responsible
16 for the development of a so-called Solid Stack Mated Film Memory which was a new memory
17 design involving vacuum-deposited, ferromagnetic films as the storage element.

18
19 6. In September 1970, I was placed in charge of Sperry Univac's Memory Design
20 and Development Department and was responsible for the development of all memories built
21 by the company's Defense Systems Division. I was required to develop and maintain a design
22 capability for a diverse range of memory technologies dictated by the company's customers,
23 primarily the U.S. Department of Defense. This group was also engaged in developing
24 enhancements of established memory technologies and their incorporation into products.
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1 7. Between March 1971 and November 1975, I continued on in the same role, first
2 in the Sperry Univac Engineering Department and later in its Research & Component
3 Development Department.

4 8. In November 1975, I was promoted to the level of Group Manager of Systems
5 Hardware within the Development and Manufacturing Engineering Department, and took
6 prime responsibility for the design and development of a broad line of products including
7 memories and peripheral equipment required to apply computer products to systems. Specific
8 developments for which I was responsible included semiconductor memories, analog to digital
9 and digital to analog conversion subsystems, a moveable head disk controller, and a data
10 acquisition system.

11 9. From November 1977 to November 1983, I served as a Group Manager for data
12 acquisition and display development. I had prime responsibility for technology development of
13 terminal and user interface devices, the development of an ultrasensitive
14 magnetometer/gradiometer system employing super-conducting quantum interference devices
15 (SQUIDS), and the development of several display terminals, magnetic bubble mass memory,
16 metal nitride oxide semiconductor (MNOS) mass memory, and voice response systems. It was
17 typical to employ microprocessors as control elements in these products.

18 10. From November 1983 until November 1984, I served as Manager of Research
19 and Development. I was responsible for the planning and coordination of the Research and
20 Development Program within the Computer Systems Division. As such, I supervised over 40
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1 different technology projects relating to computers and computer peripheral equipment, having
2 an annual budget of over \$9,500,000.

3 11. From November 1984 until December 1985, I served as a Senior Staff Scientist
4 and Chairman of the Advanced Technology Team. As such, I was a staff consultant to
5 management for advanced technology topics and technology forecasts.
6

7 12. In December 1985, I was promoted to Director of the Corporate Technology
8 Center for Optics, and served in this position until November 1987. In this capacity, I was
9 responsible for the applied research in optics that supported all of the corporate operating
10 divisions. This was a broad area of research that applied emerging optic technologies to
11 communications, signal processing, data processing, and radio frequency sensor applications.
12

13 13. Throughout my career at Sperry Univac, now Unisys, I have been actively
14 engaged in the development of a broad variety of digital circuits, computers, and computer
15 peripheral equipment. I have been responsible for many of the high technology developments
16 within the Defense Systems Division. This experience has provided a very broad insight into
17 circuit and logic design techniques. Additionally, special assignments to represent the division
18 on the Patent Review Committee and the Advanced Technology Advisory Committee have
19 provided an even broader overview of electronic technology.
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21 14. In June 1988, I retired from Unisys and am presently self-employed as a
22 consultant in the field of digital electronics.
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15. I have authored several papers dealing with computer technology and am either a sole or a joint inventor on the following issued U.S. Letters Patent. These patents by number and descriptive title are as follows:

Number	Title of Patent	Filed	Issued
3,202,869	Electrical Apparatus with Insulated Heat Conducting members	12/10/62	8/24/65
3,214,827	Electrical Circuitry Fabrication	12/10/62	11/2/65
3,274,520	High Frequency Pulse Branching and Coupling Network	10/11/65	9/20/66
3,354,445	Mated-Film Element with Single Vertical Word Line	1/3/66	11/21/67
3,357,004	Mated Thin Film Memory Element	11/23/65	12/5/67
3,371,249	Laminar Circuit Assembly	3/19/62	2/27/68
3,382,491	Mated Thin Film Memory Element	10/23/65	5/7/68
3,435,435	Solid Stack Memory	10/24/65	3/25/69
3,400,440	Input-Output Circuit	4/29/66	4/22/69
3,450,900	Digital Sense Amplifier	6/28/66	6/17/69
Re. 27,395	Solid Stack Memory	12/22/69	6/20/72
3,810,116	Volatile Memory Protection	11/24/72	5/7/74
3,813,768	Method of Forming a Tunnel Structure for a Magnetic Plated-Wire Memory Array	1/29/73	6/4/74
3,766,818	Electronic Frequency Measuring Apparatus	5/1/72	10/23/73
4,360,912	Distributed Status Reporting System	11/23/79	11/23/82
4,546,349	Local Zoom for Raster Scan Displays	6/22/84	10/8/85

My published papers are listed below:

- a. "Mated Film Memory - Implementation of new Design and Production Concept", Fall Joint Computer Conference, 1968.
- b. "Competing Storage Technologies in Future Computer Systems", Intermag, 1974.
- c. "A Modular Display for Command & Control Applications", Electronics for National Security, 1983.

1 d. "Optics for system Intraconnect", IEEE/ACM International Conference on
2 Systems Sciences, 1987.

3 16. I am a Senior Member of the Institute of Electrical and Electronic engineers.

4 **II. QUESTIONS INVESTIGATED AND INFORMATION CONSIDERED**

5 **A. Questions Investigated**

6 CDS's counsel has asked me to provide my opinion and to testify at trial concerning the
7 '882 patent. Specifically, I have been asked to opine on the following issues:

- 8 1. What does the '882 patent teach?
- 9 2. What is the scope and content of the prior art to the '882 patent?
- 10 3. What are the differences, if any, between the subject matter claimed in the '882
11 patent and the prior art?
- 12 4. What is the level of skill of a person of ordinary skill in the art to which the
13 '882 patent pertains at the time of the alleged invention of the '882 patent?
- 14 5. Are the claims of the '882 patent anticipated or obvious to a person of ordinary
15 skill in the art at the time of the alleged invention of the '882 patent?
- 16 6. Do the claims of the '882 patent particularly point out and distinctly claim the
17 alleged invention?
- 18 7. Are the claims of the '882 patent infringed by the accused CDS product?

19 **B. Law Supplied**

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21 CDS's attorneys supplied me with the following information about patent law:

- 22 1. For a patent to be anticipated by the prior art, that prior art reference or device
23 must contain each and every limitation of the claimed invention, either inherently or expressly.

1 2. As to a limitation of a claim for a combination expressed as a means or step for
2 performing a specified function without the recital of structure, material, or acts in support of
3 it, I was told that such claim limitation is construed to cover the corresponding structure,
4 material, or acts described in the specification and equivalents thereof.

5
6 3. A patent claim is invalid due to obviousness if the differences between the
7 subject matter sought to be patented and the prior art are such that the subject matter as a
8 whole would have been obvious at the time the invention was made to a person having
9 ordinary skill in the art to which the subject matter pertains.

10
11 4. I understand that before an obviousness determination is made, the level of
12 ordinary skill in the art must be considered and the differences between the claimed invention
13 and the prior art must be evaluated. I also understand that the secondary indications of non-
14 obviousness, if present, should be considered in an obviousness determination. Such
15 secondary indicia include: commercial success of the claimed invention in which there is a
16 nexus between the commercial success and the claimed invention; long-felt, but unsolved, need
17 for the claimed invention; failure of others to make the claimed invention; copying of the
18 subject matter by others; and unexpected results.

19
20 5. If the invention is different from what is disclosed in one reference, but the
21 differences are such that combination with another reference would lead to what is claimed, the
22 obviousness question then requires inquiry into whether there is reason, suggestion, or
23 motivation to make that combination. Such suggestion may come:

24
25 a. expressly from the references themselves;

1 b. from knowledge of those skilled in the art that certain references, or disclosures
2 in the references, are known to be of special interest or importance in the particular field;

3 c. from the nature of a problem to be solved, leading inventors to look to
4 references relating to possible solutions to that problem; or
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6 d. from the very nature of the subject matter involved.
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8 C. Information Considered

9 During the process of forming my opinions and preparing my report, I have studied the
10 '882 Patent, the prosecution history of the '882 patent, including the original application filed
11 October 12, 1994 (application Serial No. 322,172). I have reviewed all of the prior art
12 references cited to or by the Patent Office during prosecution and additional prior art
13 references, particularly the references cited in this report. I have reviewed documents
14 produced in this case related to the accused CDS product. I have considered the following
15 documents:
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- 17 1. The depositions of John Acres, David Weibenson, Elizabeth Borchard, Alec
18 Ginsberg, and Jose Vega. I also attended portions of the depositions of Jay
19 Stone, and Stephanie Maddocks.
- 20 2. Exhibits attached to the above depositions and other exhibits associated with
21 CDS' Motion for Summary Judgment of Invalidity.
- 22 3. The additional references cited in this report.
23

24 I have also relied upon my extensive experience with the design and use of digital
25 circuitry, including microprocessors and microprocessor controlled devices.
26

1 Should additional evidence related to this report come to my attention in the future, I
2 will examine that as well. Should it become necessary, I will supplement this report.
3

4 **III. SUMMARY OF OPINIONS**

5 Based on my study as described above, my opinions may be summarized as follow.
6

7 A. It is my opinion that at least Claims 10 and 19 of the '882 patent are anticipated
8 by the prior publication titled "Gaming Innovations Concept III", #2002918 - 20029932
9 ("Concept III brochure").

10 B. It is also my opinion that at least Claims 10 and 19 of the '882 patent are
11 anticipated by the Registration Statement, Form SB-2 submitted by Acres Gaming Corporation
12 to the U.S. Securities and Exchange Commission ("Acres SB-2").

13 ✓ C. It is also my opinion that at least Claim 10 of the '882 patent is anticipated by
14 UK Patent Application GB 2151054A, titled "Systems for playing games", William Neale and
15 Barry Anderson, filed 20 October 1983. (the "Neale application")

16 D. It is also my opinion that Claim 19 of the '882 patent would have been obvious
17 at the time of the alleged '882 invention, when the U.K. Patent Application GB2151054A is
18 considered in light of prior casino automation practices.

19 E. It is also my opinion that at least Claims 10 and 19 of the '882 patent, if broadly
20 construed are anticipated by the Acres progressive table games (installed in August of 1993 at
21 Rio Suites Casino).

22 F. It is also my opinion that all Claims of the '882 patent would have been obvious
23 at the time of the alleged '882 invention to a person of ordinary skill in the art, in view of the
24 following references:

- 25 1. Concept III brochure.
 - 26 2. Acres' SB-2.
 - 27 3. U.K. Patent Application GB2151054A.
- 28

1 4. Acres Concept III accounting and player tracking system (e.g., the system
2 installed at the Winnebago Casinos and other casinos).

3 5. S-Plus machine of IGT.

4 6. Acres progressive table games and software (e.g., the system installed in August
5 1993 at the Rio Suites Casino).

6 7. General references relating to networked systems.

7 G. It is also my opinion that at least Claims 10 and 19 of the '882 patent are invalid
8 for failure to meet the requirements of 35 U.S.C. §112, 2nd paragraph. The words
9 "command" and "predetermined event" are vague.

10 H. It is also my opinion that at least Claims 10 and 19 of the '882 patent were
11 patent ready prior to October 12, 1993. The descriptive materials available to the inventors as
12 of October 12, 1993 provided sufficient information from which to file a patent application so
13 as to support at least claims 10 and 19 of the '882 patent.

14 I. It is also my opinion that there is no consistent standard of enablement for which
15 claims 10 and 19 of the '882 patent would be both enabled by the '882 patent specification and
16 non-obvious in light of the Concept III brochure since this prior Concept III brochure discloses
17 an embodiment of claims 10 and 19 in substantially the same level of detail as the embodiment
18 in the '882 patent specification.

19 J. It is also my opinion that Claims 1-19 are not infringed by the accused CDS
20 product.

21 These opinions cover the claims that Acres has asserted. I may also offer opinions on
22 anticipation of other specific, unasserted claims after discovery is completed in this action.

23 IV. BASES FOR OPINIONS

24 A. Overview

25 Claims 10 and 19 of the '822 patent are directed to an improved method of operating a
26 casino automation system comprising a computer-controlled network of gaming devices. The
27 relevant art is thus computer automation systems in general, and particularly as this art is
28

1 applied to automate the functions of a gambling casino. Automation of a casino is the
2 integration of various arts, including digital system design, digital computer design, digital
3 communications, programming, logic design and electrical circuit design. By 1993, one year
4 prior to the filing of the '882 patent application, the computer automation art as applied to
5 casinos was very highly developed. Each of the constituent design disciplines had been highly
6 refined through a long development process spanning thirty years, or more, resulting in an
7 extremely detailed body of reference information describing how to design any automation
8 system, including automation systems for gambling casinos. The experience gained in early
9 automation systems¹ established the standards and design practices upon which present-day
10 systems depend. By 1993, the prevailing standards and practices defined a set of interoperable
11 components and methods from which virtually any system could be realized. For example, for
12 prior communication standards included IEEE standard 802.3, the prevailing standard for
13 Local Area Networks and other peer-to-peer communication. Another prior standard was RS-
14 485 which, when combined with a standard serial data transmission protocol such as HDLC,
15 was a preferred method of communication between a master, or host, computer and a large
16 number of subordinate devices such as casino games or factory machines. At least one
17 technical note recognizes the applicability of these standard systems to casino systems.

18 Once a computer is joined to a communications network it may exchange messages with
19 other members of the network. Messages may convey status information (e.g., Switch 3 of
20 machine 4 has changed to the closed position) or command information (e.g., Turn on motor 5
21 of machine 6). Thus, each of the computers on the network could be programmed to be aware
22 of events sensed anywhere on the network and effect an action anywhere on the network,
23 including the reconfiguration of the network or of the devices attached to the network. It has

24 ¹ Airline reservation systems and factory automation systems were well known by, at least, 1965. An early
25 automation system for a casino is disclosed in U.S. patent #4,283,709, titled "Cash Accounting and Surveillance System for
26 Games", Lucero et al., which was filed in 1980.

1 been a longstanding practice in automation systems to program a host computer to provide
2 real-time supervisory control of a network of machines in the manner described in the '882
3 patent. In such a system, complex control problems are solved by decomposition to a series of
4 elemental steps which may be readily expressed in a programming language. Each elemental
5 step first performs a test and then performs an action which is conditional upon the outcome of
6 the test. An example of such an elemental step is: IF Switch 3 = "Closed" AND Today =
7 "Tuesday" THEN turn on Motor 4 ELSE continue. The solution of a specific control
8 problem is known as an application program. By October 1993, the level of skill of an
9 application programmer was very high. Given only a specification of the desired results, such
10 a person would know how to write an application program to accomplish any well defined
11 automation task that didn't severely tax the capability of the technology, e. g. limitations of
12 throughput or response time. Further, the skill of the application programmer, or engineer,
13 was very high in 1993 because automation systems share a common set of operating principles,
14 which, once learned, are re-applied to the next application regardless of the controlled object
15 or the specifics of the control action. Thus, many of the limitations of the asserted claims are
16 essential features of most automation systems. For example, there is little difference, in
17 principle, between the methods of the asserted claims and the methods of U.S. patent
18 5,216,613, titled "Segmented Asynchronous Operation of an Automated Assembly Line,
19 Claude D. Head III, which was filed twenty three years earlier. For each step of the asserted
20 claims, the Head '613 patent describes a like step with respect to a factory assembly-line
21 machine rather than a gaming device

22 The '882 patent discloses and claims "A method of operating gaming devices
23 interconnected by a host computer having a user-operated input device". There is no material
24 difference between the hardware disclosed in the '882 patent and hardware widely used in
25 prior automation systems, including automation systems for gambling casinos. There is no
26 substantive disclosure in the '882 patent specification regarding how to write a program to
27 accomplish the claimed methods. The limitations of each element of claims 10 and 19 are
28 satisfied by performing steps that are relatively simple and familiar to the person of ordinary

1 skill in the art. When the threshold of disclosure for enablement is low, as it must for the
2 asserted claims to be considered enabled, almost any suggestion in the prior art to make the
3 claimed combination would invalidate the claim. The references I have relied upon for
4 anticipation and obviousness substantially exceed my threshold for enablement disclosure
5 because my standard for enablement disclosure is relatively low for the reasons I have
6 previously explained. However, it is my opinion that under any arbitrary, but consistent²,
7 standard of enablement, the asserted claims cannot be at once enabled and non-obvious.

8 **B. The Person of Ordinary Skill in the Art**

9 It is my opinion that the relevant art is computer automation systems, particularly as
10 this art is applied to automate the functions of a gambling casino. Further, that a person of
11 ordinary skill in the relevant art would have a Bachelors degree in Electrical Engineering plus
12 at least three years of experience in the design of automation systems. One year prior to the
13 time the '882 patent application was filed, he would be presumed to know the following
14 information:

- 15 1. He would understand, and know how to apply well established standards
16 pertaining to the design and operation of computer network, such standards including:

17 Electronic Industries Association standards RS-232, RS-422, and RS485

18 American Standard for Computer Information Interchange ASCII

19 Synchronous Data Link Control - SDLC

20 High Level Data Link Control - HDLC

21 High Level Data Link Control standard ISO-3309

22 Institute for Electrical and Electronic Engineers standard IEEE 802

23 ² For example, if the standard of enablement of a claimed method presumed that a skilled person knew how
24 to drive a car, it would be inconsistent to require details regarding the operation of a car door.

1 2. He would understand and know how to apply the information contained in
2 application notes published by vendors of computer components used in computers and
3 data communication products. Application Note AN-409, "Transceivers and Repeaters
4 Meeting the EIA RS-485 Interface Standard", published by National Semiconductor is
5 illustrative of such publications. It states in part:

6 The EIA RS-485 standard has found widespread acceptance and usage
7 since its ratification. Users are now able to configure inexpensive local area
8 networks and multi-drop communication links using twisted pair wire and the
9 protocol of their choice.

10 3. He would understand, and know how to apply standard methods of structured
11 programming, particularly as these methods are practiced in automation systems to
12 solve complex control and communication problems.

13 4. He would be knowledgeable regarding prior casino automation systems
14 particularly as those systems are described in the following references:

- 15 (a) U.S. Patent No. 4,837,728, Barrie et al.
- 16 (b) U.S. Patent No. 4,072,930, Lucero et al.
- 17 (c) U.S. Patent No. 4,760,527, Sidley
- 18 (d) U.S. Patent No. 4,805,907, Hagiwara
- 19 (e) U.S. Patent No. 4,926,327, Sidley
- 20 (f) U.S. Patent No. 5,007,649, Richardson
- 21 (g) U.S. Patent No. 5,078,405, Jones et al.
- 22 (h) U.S. Patent No. 5,123,649, Tiberio
- 23 (i) U.S. Patent No. 5,129,652, Wilkinson
- 24 (j) U.S. Patent No. 5,249,800, Hilgendorf et al.
- 25 (k) U.S. Patent No. 5,280,909, Tracy
- 26 (l) U.S. Patent No. 5,286,023, Wood
- 27 (m) U.S. Patent No. 5,324,035, Morris et al.
- 28 (n) U.S. Patent No. 5,344,144, Canon

C. Enablement

A requirement for validity is that the patent specification contains a description of the claimed invention sufficient for any person skilled in the art make and use the invention as claimed. The '882 patent assumes, and in fact requires, a relatively high level of skill to make and use the system described. The specification is a fragmentary description of a very complex system which is lacking in substantive implementation details for essential steps. For example, there is no description of the program required for microcontrollers 248A - 248H, Ref. Fig 12 to perform the '822 communication protocol. The specification merely states that:

Any communication protocol can be used to implement this communication path over the serial communication interface, as is known in the art, Ref. col. 23, lns. 13-15.

There are multiple levels of communications protocols in a digital network. A message protocol, such as the IGT protocol, CDS 3194-3218, defines the message format used to exchange information. In postal terms, The message protocol is about what is in the letter. The communication protocol in the above reference is a serial data link protocol, which is analogous to the postal system. It functions to automate the exchange of messages over the network, i. e., electronically perform the functions of; checking for outgoing messages, determine the addressee of the message, and deliver the message to the intended addressee.

It is true that there were several well known serial data link protocols, however the implementation of any one of these in a general purpose microcontroller would be much more difficult than programming the steps required by the asserted claims. It was well recognized in the art that serial data link communication protocols are a demanding task and that a general-purpose controller, as taught by the '882 patent specification, is an inefficient method of implementation. Rather, serial data link protocols are typically implemented with a specialized device dedicated to that function. A principal rationale for a pre-programmed specialized device is to unburden the designer from the relatively complex task of programming the data link protocol. The data sheet for the Intel 8273 Programmable HDLC/SDLC Protocol

1 Controller, Intel Corporation, 1984, my Exhibit A, is illustrative of such a prior-art specialized
2 device. It is also indicative of the complexity of serial data link protocols. I don't yet know
3 what '882 implementation details, if any, the plaintiff contends are necessary for enablement of
4 the asserted claims. However, it is my intention at trial to compare these contentions with all
5 of the essential, but unexpressed, implementation details required to practice the methods as
6 described in the '882 patent specification.

7 **D. Claims 10 and 19 of the '882 patent are anticipated by the prior publication**
8 **titled "Gaming Innovations Concept III", #2002918 - 20029932**

9 The following element-by-element analysis of claim 10 compares the corresponding
10 teaching of the '882 patent specification and the Concept III document (Weibenson Deposition
11 Exhibit 3). While I have relied upon the entire teaching of both disclosures in forming my
12 opinion, I have cited only the text which I consider to be most pertinent:

13
14 1. Preamble

15 Claim 10:

16 A method of operating gaming devices interconnected by a host computer
17 having a user-operated input device comprising:

18 '882 Patent Specification.

19 "A system for monitoring and configuring gaming devices interconnected over a
20 high-speed network is disclosed. The system can support a file server, one or
21 more floor controllers, one or more pit terminals, and other terminals all
22 connected over the network". abstract, see also Fig.1.

23 "The floor controllers 18 and 28 are, in the preferred embodiment, IBM-
24 compatible personal computers", col. 7, lns. 26-27.

25 "... each floor controller is equipped with a communication board 246, as
26 shown in Fig. 12", col. 19, lns. 18-19.

1 "The communication board 246 includes eight separate microcontrollers 248A-
2 348H. . . . Each microcontroller is responsible for two current loop
3 networks." col. 19, lns. 29-42.

4 Concept III:

5 "Concept III eliminates the dual cost of hardware and provides an integrated
6 system to provide all your information and promotional needs", #2002922.

7 "Instead of mounting a controller beneath each carousel of machines, the system
8 is programmed from a personnel computer", #2002923.

9 "Four wire cable (uses standard RJ-11 phone connectors) up to 1,000 machines
10 per floor controller", notation on the graphic titled Gaming Innovations Data
11 Collection System Overview, #2002928

12 AutoScans are connected through an optically isolated four wire cable to a Floor
13 Controller. Each Controller can manage up to 1000 AutoScan units. Up to
14 eight Floor controllers, a total of 8000 machines are allowed in a single casino.
15 #2002931.

16 "AutoScan mounted inside each machine", another notation on the graphic
17 #2002928.

18 "Our system includes support for all types of electronic machines, including the
19 most advanced units with serial "interfaces". These machines send activity
20 information as complex signals over a single pair of wires. The result is more
21 accurate and detailed information, but it takes a fast system like AutoScan to
22 properly record it.", #2002929.

23 Concept III discloses the claim 10 preamble. Such systems were well known. A
24 person skilled in the art would be able to make such a system.
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1 2. Associating

2 Claim 10

3 associating each gaming device with a unique address code;

4 '882 Patent Specification:

5 "The floor controller communicates with the DNCs by using a standard
6 communication protocol. In the preferred embodiment this protocol defines a
7 message format including a destination ID, a source ID, a message length, a
8 data packet and a CRC," col. 34, lns. 36-39.

9 Concept III:

10 "Advanced identification techniques let you specify the machine house number
11 as you install it. If the machine is later moved, it is automatically re-located by
12 the system". #2002929

13 "Connections are made to each machine with telephone style RJ-11 modular
14 jacks. This makes system installation and maintenance easy. When it comes
15 time to move a machine, simply unplug its power cable, unsnap the data
16 connector and move the machine. The whole disconnection process takes only a
17 few seconds and requires no special skills. All other machines in the system
18 continue to function normally." #2002931.

19
20 This step is taught in the Concept III. It is accomplished by associating a gaming
21 device with a network ID, a unique address code which distinguishes the network node of the
22 instant gaming device from all other nodes. A unique ID is an essential feature of all computer
23 networks. The Concept III disclosure shows this step.

1 3. Preselecting

2 Claim 10:

3 preselecting less than all of the gaming devices connected by the host computer
4 responsive to a user-effected action at the input device which identifies the
5 preselected gaming devices with the respective associated address codes;

6 '882 Patent Specification:

7 "The system provides the capability for the casino to select which of the
8 plurality of machines are used in any given promotion. The system further
9 allows any number of different promotions to operate simultaneously", col. 20,
10 Ins. 2-6.

11 Concept III:

12 "You select which machines are used in which promotions, connect your
13 signage and information displays (if any), and begin operation. Concept III
14 allows any number of different promotions to operate simultaneously." (Id. pg.
15 2)

16 "You can set up the system to only pay Double Jackpots to customers playing
17 maximum coins, or pay double only on awards above a specified amount." (Id.
18 pg. 3)

19 "You simply type in which machines are connected to which links and describe
20 the starting jackpots amounts, increment rates, limits if any, etc." (Id. pg. 3)

21 The step of preselecting is another well known, if not inherent, step of the computer
22 networking art. Preselection, as taught and claimed by the '882 patent, is known more
23 generally as remote reconfiguration. It accomplishes by software reconfiguration acts which
24 required physical actions in earlier systems and had become a preferred method for computer
25 network systems. This step is both taught and enabled by the Concept III disclosure.

1 4. Network Tracking

2 Claim 10:

3 using the network to track activity of the preselected gaming device;

4 '882 Patent Specification:

5 "Each transaction, whether it be a coin in a handle pull, etc., is recorded by the
6 system." Col. 3, Ins. 34-35.

7 "Each floor controller is responsible for monitoring the activity level of the
8 corresponding gaming devices connected thereto and . . . The floor controllers
9 issue status requests to each of the individual gaming devices to determine the
10 activity level of each. In the event the floor controller detects any activity, the
11 floor controller communicates that activity to a file server 32. . ." Col. 7, Ins.
12 27-36.

13 "Together, the data communication node 42 and the player tracking module 44
14 allow the floor controller connected to the associated gaming device to monitor
15 and control the activity of the gaming device." Col. 8, Ins. 55-59.

16 "The floor controller is responsible for monitoring the activity of each of the
17 gaming devices connected thereto and reporting this activity to the database. . ." Col. 19, Ins. 4-6.

18 "The first is a request for data from the DCN. If this type of message is
19 detected the DCN builds the data requested and transmits the data in a reply
20 message. The main use of this message type is to gather status and meter
21 information from the DCN." Col. 24, Ins. 61-65.

22 "The first type of message can be one which includes a new meter information.
23 The floor controller checks in step 498 to determine whether the message
24 includes this type of information. If the message includes new meter
25 information, the floor controller saves the new meter information locally in step
26 500. The floor controller maintains local copies of the meter information in

1 order to minimize the amount of traffic on the high-speed network. Because the
2 machine meters change so rapidly, forwarding this new meter information on to
3 the file server each time one of these meters is altered would produce an
4 excessive amount of network traffic on the high-speed network. Therefore, in
5 the preferred embodiment, the floor controller saves this new meter information
6 locally in step 500 and only forwards the new information on to the file server
after a predetermined amount of time has elapsed." Col. 33, lns. 31-46.

7 "The floor controller also monitors the locally-stored meter information in step
8 528. If the locally-stored information is changed, the floor controller saves the
9 latest information to the data base in step 530. As described above, the floor
10 controller saves the meter information locally in order to minimize the traffic to
11 the file server over the high speed network. Col. 35, lns. 30-36.

12
13 Concept III:

14 "Since Concept III monitors slot activities, it collects all information required
15 for proper slot accounting reports." (Id. pg. 4)

16 "Concept III also records how long the customer spends at each machine and
17 records the number of coins won, counts games played and hand paid jackpots
18 won." (Id. pg. 5)

19 Tracking the activity of gaming devices attached to a network is another well known
20 feature of prior casino automation systems. The Concept III disclosure both teaches and
21 enables tracking of the activity of a preselected device, or devices. The patent itself also
22 admits that networked tracking and accounting systems for gaming devices are "known in the
23 art." Col. 1, line 13.

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1 I consider the limitation of predetermined event to be indefinite because of the variety
2 of events described in the '882 specification and the ambiguity of the adjective
3 "predetermined". In the context of a real-time computer system, a predetermined event is
4 generally considered to be an event which happens at a predetermined time. All other events
5 such as a jackpot win, are asynchronous events. However, an asynchronous event could be
6 considered to be predetermined by programming as to type, meaning, or association with a
7 predetermined action without regard for when it occurs. Under this broad construction a
8 network polling command would correspond to this step. This ambiguity is material because
9 without a definite scope for a "predetermined event" it is not possible to determine which of
10 the many commands taught by the '882 specification are responsive to this step. If the claim is
11 construed, in light of the specification, to have a definite meaning then this step must include:
12 issuing a reconfiguration command to reconfigure the payout schedule of a gaming device as
13 described in the patent abstract. The Concept III disclosure teaches and enables this step. It is
14 my understanding that by 1993 the S-Plus Slot Series of machines were commercially available
15 from IGT and that these machines could be commanded to automatically reconfigure a jackpot
16 payout level. Notwithstanding the gaming regulatory obstacles to gaining approval to be
17 allowed to perform this step, the commercial availability of the S-Plus machine provides
18 further support for my opinion.

18 6. Paying

19 Claim 10

20 paying at said one gaming device in accordance with the command

21 '822 specification

22 "Thus, it would be desirable to reconfigure the under utilized gaming devices to
23 provide an additional incentive to players to use these devices. In the past
24 casinos have run "bonuses" during these times. An example of such bonuses
25 include a "double jackpot" wherein a player hitting a jackpot is paid double the
26

1 jackpot amount. Currently this is implemented by having an attendant manually
2 payout the additional payout amount. This manual technique, however, is
3 cumbersome and inefficient to administer because an attendant must be
4 constantly supervising the bonusing gaming devices. Accordingly, a need
5 remains for an automated method and apparatus to provide bonusing for gaming
6 devices." Col. 2, lns. 11-23.

7 "Upon receipt of the reconfiguration command, the gaming device reconfigures
8 its payout schedule in accordance with the received reconfiguration command.
9 In the preferred embodiment, this reconfiguration includes activating a bonus
10 payout schedule. A partial list of the promotions according to the invention
11 include, but are not limited to: a multiple jackpot wherein the gaming device
12 reconfigures its payout to be a multiple of its default payout schedule; a bonus
13 jackpot wherein the gaming device reconfigures its payout schedule to payout an
14 additional bonus amount when certain conditions are met; and a progressive
15 jackpot wherein two or more gaming devices are combined in a progressive
16 jackpot having a progressive jackpot payout schedule." Col. 3, lns. 2-15.

17 "The gaming devices, on receiving a reconfiguration command, will reconfigure
18 its jackpot payout schedule in accordance with the reconfiguration command.

19 This reconfiguration, in the preferred embodiment, comprises activating
20 a bonus payout schedule. This bonus payout schedule is in addition to the
21 normal pay table of the gaming device." Col. 6, lns. 37-43.

22 "... cause the machines to activate a bonus payout table to allow the machine to
23 append bonus payments to their standard jackpot payouts, as specified by their
24 payout table, during certain bonus activities." Col. 10, lns. 6-9.

25 "As described above, reconfiguring a gaming device payout schedule, in the
26 preferred embodiment, includes activating a bonus payout schedule that pays out
27 bonus amounts in addition to the amount determined by the device payout table.
28

1 A partial list of the promotions according to the invention include, but
2 are not limited to: a multiple jackpot wherein the gaming device reconfigures its
3 payout to be a multiple of its default payout schedule; a bonus jackpot wherein
4 the gaming device reconfigures its payout schedule to payout an additional
5 bonus amount when certain conditions are met; and a progressive jackpot
6 wherein two or more gaming devices are combined in a progressive jackpot
7 having a progressive jackpot payout schedule. In addition to these, many other
8 promotions are possible by the above-described system for controlling and
9 monitoring a plurality of gaming devices." Col. 20, lns. 13-30.

10 Concept III

11 "Concept III automates double jackpot payments by causing the machine hopper
12 to pay bonus amounts." (Id. pg. 2).

13
14 I construe this step to require automatic payment of a bonus amount. The Concept III
15 disclosure teaches and enables this step. It is my understanding that the S-Plus machine can be
16 commanded to automatically pay a lower level progressive jackpot from the game hopper. Not
17 withstanding the gaming regulatory obstacles to gaining approval to be allowed to perform this
18 step, the commercial availability of the S-Plus machine provides further support for my
19 opinion. In addition, IGT's implementation of specific protocols to accomplish this feature by
20 September 3, 1993 shows that one of ordinary skill had the requisite ability to accomplish this
21 objective in 1993. CDS 3194-3218

22 7. Allocating

23 Claim 19

24 19. The method of claim 1 wherein said method further comprises allocating a
25 predetermined percentage of the cumulative amount wagered at all of the
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1 preselected gaming devices to a bonus pool and wherein paying at said one
2 gaming device in accordance with the command comprises paying said pool at
3 said one gaming device.

4 5 '882 Specification

6 "Another reconfiguration command allows any number of machines on the
7 network to be combined in a common jackpot having a common jackpot payout
8 schedule, wherein the reconfiguration command reconfigures the selected
9 machines to payout in accordance with the common jackpot payout schedule. In
10 this case, the reconfiguration message would be queued up for each of the
11 selected machines to be combined in a common jackpot. One example of a
12 common jackpot is a progressive jackpot. Unlike the prior art progressive
13 jackpot systems, however, the progressive jackpot according to the invention is
14 not limited to a predetermined number of machines. In the prior art progressive
15 jackpot systems, a bank of machines are connected to a common progressive
16 jackpot controller and only those machines can be included in the progressive
17 jackpot. In contrast, any machine on the network including those connected to
18 other floor controllers can be combined into a common progressive jackpot.
19 Moreover, the number of progressive jackpots is not limited by the number of
20 floor controllers since one floor controller can manage more than one
21 progressive jackpot." Col 36, lns. 16-36.

22 Concept III

23 Standard progressive jackpots are also possible. Instead of mounting a
24 controller beneath each carousel of machines, the system is programmed from a
25 personal computer. You simply type in which machines are connected to which
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1 links and describe the starting jackpots amounts, increment rates, limits if any,
2 etc. Then you can mount jackpot displays anywhere in the casino. All you
3 have to do is set the display to match the jackpot number it is to display. Up to
4 64 separate jackpots are allowed. #2002923.

5
6 The claimed step of allocating merely states the method used by prior progressive
7 games to determining the value of the progressive jackpot. This step is taught by the Concept
8 III disclosure.

9 The Concept III disclosure is enabled because the step of allocating money to a
10 progressive jackpot was well known and well within the skill of the artisan in 1993.

11 My conclusion that the Concept III is an enabled, anticipatory reference is further
12 supported by comparison of the technical particulars disclosed by the '882 patent with those
13 taught by Concept III.

14 The following element-by-element analysis of claim 10 compares the corresponding
15 teaching of the '882 patent specification and Concept III (Weibenson Deposition Exhibit 3).
16 While I have relied upon the entire teaching of both disclosures in forming my opinion, I have
17 cited only the text which I consider to be most pertinent:

18 1. Preamble

19 Claim 10:

20 A method of operating gaming devices interconnected by a host computer
21 having a user-operated input device comprising:

22 '882 Patent Specification

23 "A system for monitoring and configuring gaming devices interconnected over a
24 high-speed network is disclosed. The system can support a file server, one or
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1 more floor controllers, one or more pit terminals, and other terminals all
2 connected over the network", abstract, see also Fig. 1.

3 "The floor controllers 18 and 28 are, in the preferred embodiment, IBM-
4 compatible personal computers", col 7, lns 26-27.

5 ". . . each floor controller is equipped with a communication board 246, as
6 shown in Fig. 12", col 19, lns 18-19.

7 "The communication board 246 includes eight separate microcontrollers 248A-
8 348H. . . . Each microcontroller is responsible for two current loop
9 networks." col. 19, lns. 29-42.

10 Concept III:

11 "Concept III eliminates the dual cost of hardware and provides an integrated
12 system to provide all your information and promotional needs", #2002922.

13 "Instead of mounting a controller beneath each carousel of machines, the system is
14 programmed from a personnel computer", #2002923.

15 "Four wire cable (uses standard RJ-11 phone connectors) up to 1,000 machines per
16 floor controller", notation on the graphic titled Gaming Innovations Data Collection
17 System Overview, #2002928

18 AutoScans are connected through an optically isolated four wire cable to a Floor
19 Controller. Each Controller can manage up to 1000 AutoScan units. Up to eight
20 Floor controllers, a total of 8000 machines are allowed in a single casino. #2002931.

21 "AutoScan mounted inside each machine", another notation on the graphic
22 #2002928

23 "Our system includes support for all types of electronic machines, including the
24 most advanced units with serial "interfaces". These machines send activity
25 information as complex signals over a single pair of wires. The result is more
26 accurate and detailed information, but it takes a fast system like AutoScan to
27 properly record it.", #2002929.

1
2 Comparison:

3 Both disclosures are a high level description of the same embodiment. The differences
4 regarding details of implantation are insubstantial. A skilled person would consider the Concept III
5 network interconnecting a floor controller with up to 1000 machines to be a four-wire multi-point
6 bus. The industry standard for this class of network is RS-485. Various RS-485 products were
7 available which are the equivalent of the '882 embodiment and which incorporate substantially all
8 of the '882 implementation details. The MPL 4215-2 Octal RS-485 Interface Card, Ex __, and the
9 VersaLogic VL7315, Ex __, are illustrative of such products. Thus, The Concept III disclosure is
10 no less enabling than the '882 patent specification regarding the design of a network comprising
11 gaming machines and a host computer.

12 2. Associating

13 Claim 10:

14 associating each gaming device with a unique address code;

15 '882 Patent Specification:

16 "The floor controller communicates with the DNCs by using a standard
17 communication protocol. In the preferred embodiment this protocol defines a
18 message format including a destination ID, a source ID, a message length, a data
19 packet and a CRC. col 34, lns. 36-39.

20 Concept III

21 "Advanced identification techniques let you specify the machine house number as
22 you install it. If the machine is later moved, it is automatically re-located by the
23 system", #2002929

24 "Connections are made to each machine with telephone style RJ-11 modular jacks.
25 This makes system installation and maintenance easy. When it comes time to move
26 a machine, simply unplug its power cable, unsnap the data connector and move the
27 machine. The whole disconnection process takes only a few seconds and requires no
28

1 special skills. All other machines in the system continue to function normally."
2 #2002931.

3
4 Comparison:

5 All computer networks require that each communicating node, such as a gaming machine be
6 associated with a unique address code which is their network ID. When the gaming machine is the
7 originator of a message it identifies itself as the sender by placing its unique address code in the
8 source ID field of the message. It also screens all messages it receives, responding to only those
9 for which the destination ID matches the unique address code. It is my opinion that the step of
10 associating is accomplished when a gaming machine is logged on to a network by any of the means
11 known in the data communications art which may be manual, semi-automatic or automatic. There
12 is no limitation in claim 10 that a gaming machine have an additional unique identity such as a
13 machine house number³, nor that any assignment of an association be accomplished automatically
14 as taught in the '822 specification. However, even if the step of associating is narrowly construed
15 to require automatic assignment of the association in the manner taught by the '882 patent a person
16 skilled in the art is also taught that step by the Concept III disclosure. Since the step of associating
17 is a well known, if not inherent, step in the computer networking art a skilled person needs no
18 detailed instructions to accomplish the step. The Concept III disclosure is thus no less enabling
19 than the '882 patent specification regarding the design of a network of gaming devices.

18
19 3. Preselecting

20 Claim 10

21 preselecting less than all of the gaming devices connected by the host computer
22 responsive to a user-effected action at the input device which identifies the
23 preselected gaming devices with the respective associated address codes;
24
25
26

27 ³ See also col. 24, lns. 18-22
28

1 '882 Patent Specification:

2 "The system provides the capability for the casino to select which of the plurality of
3 machines are used in any given promotion. The system further allows any number
4 of different promotions to operate simultaneously", col. 20, lns. 2-6

5 Concept III:

6 "You select which machines are used in which promotions, connect your signage
7 and information displays (if any), and begin operation. Concept III allows any
8 number of different promotions to operate simultaneously." (Id. pg. 2)

9 "You can set up the system to only pay Double Jackpots to customers playing
10 maximum coins, or pay double only on awards above a specified amount." (Id. pg.
11 3)

12 "You simply type in which machines are connected to which links and describe the
13 starting jackpots amounts, increment rates, limits if any, etc." (Id. pg. 3)

14 Comparison:

15 Both disclosures describe performing the claimed step of preselecting without describing
16 how to perform it. The step of preselecting is another well known, if not inherent, step of the
17 computer networking art. Even if the limitation of "less than all" is narrowly construed to require
18 more than one preselected device it is nevertheless a step that is routinely practiced in computer
19 network systems, such as Novell netware products. Nor is there any uncertainty about how to
20 accomplish preselection of devices. Task oriented polling tables and other forms of table lookup
21 techniques are well known and extensively used. It is thus my opinion that enablement of this
22 claim element doesn't require a disclosure of how to accomplish this step and that the Concept III
23 disclosure is no less enabling than the '882 patent. If enablement did require instruction regarding
24 how to perform the claimed step of "preselecting less than all of the gaming devices . . .
25 responsive to a user-effected action" the '882 specification does not provide that instruction. The
26 only description of how anything is done responsive to a user-effected action states:

26 "The process 464 also includes a system monitoring step 474. This system
27 monitoring step 474 administers certain system-wide events. These system-wide
28 events include the counting-related events and bonusing events. The floor controller

1 continuously checks to see whether any of these events have been triggered. If any
2 event has been triggered, such as a bonusing event, the floor controller takes the
3 appropriate action to handle the event. The event may be triggered by the time
4 and day or by user intervention or other event. The system monitoring step 474 will
5 be described further below with reference to FIGS 32 and 33."

6 Col. 32, lns. 18-28 (emphasis added). It would be difficult to say less.

7 4. "Network Tracking" through "Allocating"

8 The comparisons made above show a similar level of disclosure for the '882 patent
9 versus the Concept III regarding the claimed steps.

10
11 E. Claims 10 and 19 of the '882 patent are anticipated by the Registration Statement,
12 Form SB-2 submitted by Acres Gaming Corporation to the U.S. Securities and
13 Exchange Commission.

14 The Acres Form SB-2, submitted prior to the statutory bar period, states in part:

15 progressive jackpot systems and bonusing systems, which provide players
16 with opportunities for additional play and special payouts, are designed to enhance
17 interest in the machines and games to which they are attached. Progressive jackpot
18 systems for slot machines link a number of slot machines to generate a collective
19 jackpot. The Concept III progressive jackpot system permits flexible programming,
20 enabling the casino manager to determine which machines are to be linked to the
21 progressive jackpot, and to establish various parameters such as starting jackpot
22 amounts, rate of increment, and limits, if any, on the jackpot. The flexibility
23 provided by Concept III enables the casino manager to design, alter and readily
24 implement new progressive jackpot promotions.

25 * * *

26 Bonusing programs, such as double jackpots at certain times of the day, have been
27 used successfully by many casinos to increase play at slot machines. Traditional
28 bonusing programs, however, have required extensive administrative effort to
manage. Concept III, with its ability to deliver instructions to the slot machine,
enables the casino to automate the payment of and accounting for double jackpot and
other bonus programs. In addition, the Concept III technology enables a casino to
establish other parameters for bonusing programs, such as allowing a double jackpot
or other bonusing program to operate on a random basis, or to operate only when a
minimum level of activity is present, Ref. pg. 3.

1 To a person of ordinary skill in the art this is an enabling teaching to build a fully
2 automatic, reconfigurable system to perform the well known promotions which had previously
3 required manual intervention for at least one of the steps.

4 I have reviewed, analyzed, and incorporated into my opinion paragraphs 9-14 of Michael
5 Bennett's Declaration dated September 17, 1998, which breaks down claim 10 of the '882 patent
6 and shows each element in the SB-2. The "allocating" step of claim 19 (progressives) is shown by
7 the SB-2's disclosure of "progressives" throughout the document.

8 There is no ambiguity regarding what to do. A person of ordinary skill would have known
9 how to realize a system which "permits flexible programming, enabling the casino manager to
10 determine which machines are to be linked to the progressive jackpot" and "enables the casino to
11 automate the payment of and accounting for double jackpot and other bonus programs" for the
12 reasons I have already stated.

13 **F. Claim 10 is anticipated and Claim 19 is obvious in view of the U.K. Reference**

14 Claim 10 of the '882 patent is anticipated by UK Patent Application GB 2151054A, titled
15 "Systems for playing games". William Neale and Barry Anderson, filed 20 October 1983, (the
16 "Neale application"). I have considered the claim analysis of the Neale application set forth by
17 Michael Joseph Bennett in his declaration of September 17, 1998. I concur with his analysis and
18 incorporate it by reference as support for my opinion.

19 Claim 19 of the '882 patent would have been obvious when the Neale application is
20 considered in light of other prior art automation practices, such as prior art progressive systems,
21 accounting and player tracking systems, and Acres' own Concept III product literature.

22 **G. Claims 10 and 19 were patent ready "as of October 12, 1993"**

23 I understand that a determination of "on sale" requires that two conditions are satisfied.
24 First, the product must be the subject of a commercial offer for sale. Second the invention must be
25 ready for patenting. An invention is ready for patenting if the inventor has prepared drawings or
26 other descriptions that were sufficiently specific to enable a person skilled in the art to practice the
27 invention. I am aware of no facts that indicate that the Treasure Island purchase order # (GPM
28

1 003241 and 42) indicates that anything other than an offer for sale was made for the inventions of
2 claims 10 and 19 for commercial use. I am aware of no facts that indicate that the Progressive
3 Game System for the Rio Casino, Vega Dep. Ex. 191, was anything other than a sale of the
4 subject matter of claims 10 and 19 for commercial use. I have already explained why the Concept
5 III brochure, by itself would have been enabling. Plainly, the inventor possessed documents
6 detailing how to accomplish the methods described in the Concept III brochure. The documents
7 produced to date are more than sufficient to show the claimed inventions to be ready for patenting.
8 The following references, when considered collectively, provide a description of the claimed
9 inventions which are at least as enabling as the '882 specification:

10 Concept III disclosure, Wiebenson Dep. Ex. 3.

11 All other Concept III disclosures prior to October 12, 1993.

12 Firmware listing TPRGVARS.SRC, Vega Dep. Ex. 193.

13 Caribbean Stud Progressive Project, Vega Dep. Ex. 194.

14 Control Box Schematic, Vega Dep. Ex. 195.

15 Table Game Progressive Installation Instructions, Vega Dep. Ex. 197

16 Concept III Protocol, Vega Dep. Ex. 198

17 SB-2 Registration Statement.

18 Acres Production Nos. 2001659-63.

19 Acres Production Nos. 2001654-58

20 Acres Production Nos. 2002241-58

21 Acres Production Nos. 2002222-31

22 Acres Production Nos. 2001572-73

23 Acres Production Nos. 2002217-21

24 Acres Production Nos. 2001655-68

25 Schematics of the AutoScan and Video Display Drive B.

26 I understand that a 30(b)(6) deposition has been noticed that should require Acres to more
27 particularly identify pertinent schematics and software, and as those items come to light I will
28

1 incorporate them into my opinion. These documents contain all the technical information necessary
2 to prepare a patent application enabling claims 10 and 19.

3 4 **H. Acres Progressive table games**

5 I understand that Acres sold and installed its progressive table games by August of 1993 at
6 Rio Suites Casino. Claims 10 and 19 recite "gaming devices." Acres progressive table games are
7 "gaming devices." Each table is a gaming device. Each of the elements of claims 10 and 19, if
8 broadly construed, are found in the Acres progressive table games.
9

10 11 **I. Obviousness**

12 The U.K. Patent Application shows a complete reconfigurable gaming system having a host
13 computer with networked games. It would have been obvious to combine the teaching of the U.K.
14 patent application with the Barrie patent (U.S. Patent No. 4,837,728) which teaches a progressive
15 slot machine system. Such a combination meets the limitations of at least claims 10 and 19 of the
16 '882 patent.
17

18 In addition, a suggestion in the art to make the combination is expressly found in each of the
19 following:
20

- 21 1. The automation art in general
- 22 2. Concept III brochure.
- 23 3. SB-2 Form.
- 24 4. Rio Suite Progressive Table game system. (Describing a network of gaming
25 machines that can be modified without changing the hand-wired configuration).
26
- 27 5. S-Plus IGT machines and machine brochure.
28

1 Numerous other permutations and combinations of references are possible. I plan on
2 selecting specific combinations for use at trial based on the claim scope ultimately decided by the
3 Court, and I plan on showing that all claims of the '882 patent are anticipated and/or obvious.

4 Regarding secondary considerations, I am aware of no commercial success, long-felt need,
5 rapid adoption, copying, or other factors that would suggest non-obviousness. I am aware of CDS'
6 prior work developing the "Fastest Cash" system which, according to my present understanding
7 contains every element of claims 10 and 19, if broadly construed. I am also aware that CDS'
8 engineers began work on at least some features of the accused "Pro-Turbo" system prior to Acres'
9 filing date, and depending on what proof of conception and diligent reduction to practice is offered
10 by Acres. I may supplement my opinion to add opinions regarding prior inventorship under 35
11 U.S.C. §102(g).
12
13
14

15 **J. Claims 1-19 are not infringed**

16 In my rebuttal report I will respond specifically to any statements made by Acres experts
17 that the claims are infringed by the products of CDS. At a minimum, each of the claims require a
18 payout at the hopper responsive to a command. The accused CDS product does not meet this claim
19 requirement.
20
21

22 **K. Materiality**

23 I understand that CDS is contending that Acres withheld material prior art from the
24 examiner. I have examined the Concept III and SB-2 documents and can find no reference to them
25 in the file history. They are plainly material as I have shown above. In my own experience, the
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1 inventor's own literature is precisely the material that is most likely to be pertinent to the examiner,
2 especially if it teaches the claimed invention and/or suggests that the invention was on sale.

3 4 **VI. EXHIBITS**

5 At trial, I may rely on all the documents referred to in this report, and I may use them as
6 exhibits. I also reserve my right to prepare additional exhibits for trial explaining various aspects
7 of my opinions.

8 It is likely that I shall use demonstrative exhibits in connection with my testimony and to
9 support my opinions. Such exhibits shall be prepared by me or others under my direction. Such
10 exhibits shall demonstrate at least a comparison between the '882 patent and one or more of the
11 references referred to in this report. I cannot determine the full scope of such exhibits until I
12 review the reports of Acres' experts. For example, I may use colorized claim charts, colorized
13 prior art documents, colorized '882 patent, etc., similar to the exhibits to CDS' Motion for
14 Summary Judgment.

15 16 **VII. COMPENSATION TO BE PAID AND CASES IN WHICH I HAVE APPEARED**

17 I am compensated for my expenses plus an hourly fee. The hourly fee is \$120 except for
18 time out of my office, including travel depositions and trial, for which my fee is \$200 per hour.

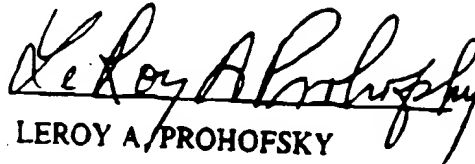
19 20 21 **IV. OTHER CASES**

22 CASE: Laitram vs. NEC
23 SUBJECT: LED printer (similar to a laser printer)
24 REPRESENTING: Laitram
25 FIRM/ATTY.: McAndrews Held & Malloy/Lawrence Jarvis
26 INVOLVEMENT: declaration, deposition, operable model,
27 testified
28

1	CASE:	Nilssen vs. Honeywell
2	SUBJECT:	wall mounted timer switch
3	REPRESENTING:	Honeywell
4	FIRM/ATTY.:	Allegretti & Witcoff/Sheldon Witcoff
5	INVOLVEMENT:	declaration, deposition, operable model
6		
7	CASE:	Honeywell v. Jameson et al.
8	SUBJECT:	set-back thermostat
9	REPRESENTING:	Honeywell
10	FIRM/ATTY.:	Arnold, White & Durkee (later, Fish & Richardson)/Michael Sutton
11	INVOLVEMENT:	declaration, deposition, testing, video of test results
12		
13	CASE:	Valley vs. Arachnid
14	SUBJECT:	computer controlled dart games
15	REPRESENTING:	Arachnid
16	FIRM/ATTY.:	McAndrews, Held & Malloy/John Held
17	INVOLVEMENT:	declaration, deposition
18		
19	CASE:	Hewlett-Packard v. GenRad
20	SUBJECT:	in-circuit testers
21	REPRESENTING:	GenRad
22	FIRM/ATTY.:	Cesari and McKenna Robert Cesari
23	INVOLVEMENT:	analysis, operable model, declarations, deposition, testified.
24		
25	CASE:	M. T. McBrian
26	SUBJECT:	HVAC control systems
27	REPRESENTING:	M. T. McBrian
28	FIRM/ATTY.:	McBride Baker and Coles/ Robert W. Queeny
	INVOLVEMENT:	declaration, deposition

1 CASE: Storz vs. Alcon
2 SUBJECT: Ophthalmic Microsurgical Controller
3 REPRESENTING: Storz
4 FIRM/ATTY.: McAndrews Held and Malloy/ Lawrence M. Jarvis
5 INVOLVEMENT: declaration, expert witness report, testified
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Dated: 2/16/99


LEROY A. PROHOFKY

Certificate of Service

I hereby certify that a copy of the foregoing **EXPERT WITNESS REPORT OF LEROY A. PROHOFSKY** was served on the following persons:

Via First-Class Mail

Mark Rosencrantz, Esq.
Jolley Urga Wirth & Woodbury
3800 Howard Hughes Parkway, 16th Floor
Wells Fargo Tower
Las Vegas, Nevada 89109

Steve Morris, Esq.
Schreck Morris
1200 Bank of America Plaza
300 South Fourth Street
Las Vegas, Nevada 89101

Allan T. McCollom, Esq.
Marger, Johnson, McCollom & Stolowitz, P.C.
1030 S.W. Morrison Street
Portland, Oregon 97205

Via Federal Express

Mark Jackson, Esq.
Perkins Coie LLP
1201 Third Avenue, 40th Floor
Seattle, Washington 98101-3099

Steven E. Shapiro, Esq.
Mitchell Silberberg & Knupp, LLP
11377 West Olympic Boulevard
Los Angeles, California 90064-1683

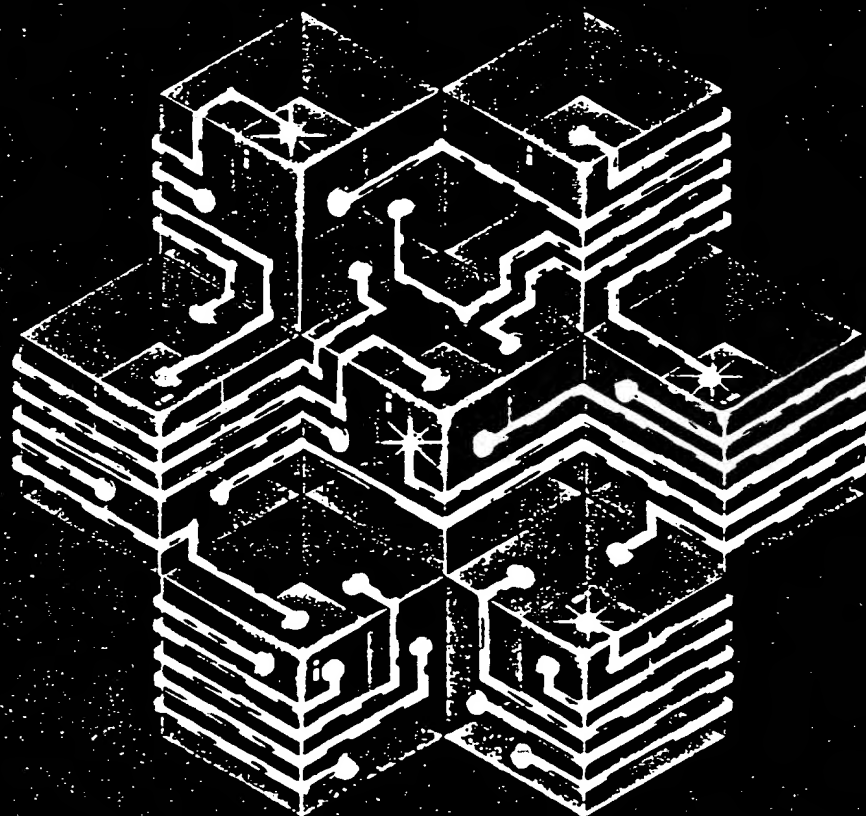
Dated: February 16, 1999

Clairette Doro

intel

Microsystem Components Handbook

Microprocessors and Peripherals
Volume II



WILLIAM A. EARN

Order Number: 230843-002

CHAPTER
OVERVIEW

CHAPTER
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MICROSYSTEM COMPONENTS HANDBOOK

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1985

About Our Cover:
The design on our front cover is an abstract portrayal of microprocessors and associated peripherals as the building blocks which provide total systems development solutions. Intel superior technology and reliability provide easier solutions to specific development problems thereby cutting "time-to-market" and creating a greater market share.

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82064 Winchester Disk Controlle
8207 Dual-Port Dynamic RAM C

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8228/8238 System Controller an
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82288 Bus Controller for IAPX 28
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8253/8253-5 Programmable Inte
82530/82530-6 Serial Communic

8273, 8273-4 PROGRAMMABLE HDLC/SDLC PROTOCOL CONTROLLER

- CCITT X.25 Compatible
- HDLC/SDLC Compatible
- Full Duplex, Half Duplex, or Loop SDLC Operation
- Up to 64K Baud Synchronous Transfers (56K Baud with 8273-4)
- Automatic FCS (CRC) Generation and Checking
- Up to 9.6K Baud with On-Board Phase Locked Loop
- Programmable NRZI Encode/Decode
- Two User Programmable Modem Control Ports
- Digital Phase Locked Loop Clock Recovery
- Minimum CPU Overhead
- Fully Compatible with 8048/8080/8085/8088/8086/80188/80186 CPUs
- Single +5V Supply

The Intel® 8273 Programmable HDLC/SDLC Protocol Controller is a dedicated device designed to support the ISO CCITT's HDLC and IBM's SDLC communication line protocols. It is fully compatible with Intel's new high performance microcomputer systems such as the MCS1 88/186™. A frame level command set is achieved by a unique microprogrammed dual processor chip architecture. The processing capability supported by the 8273 relieves the system CPU of the low level real-time tasks normally associated with controllers.

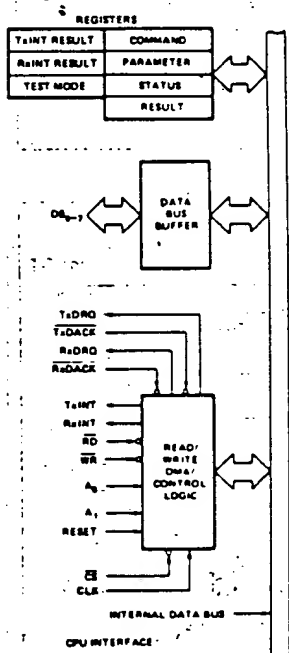


Figure 1. Block Diagram

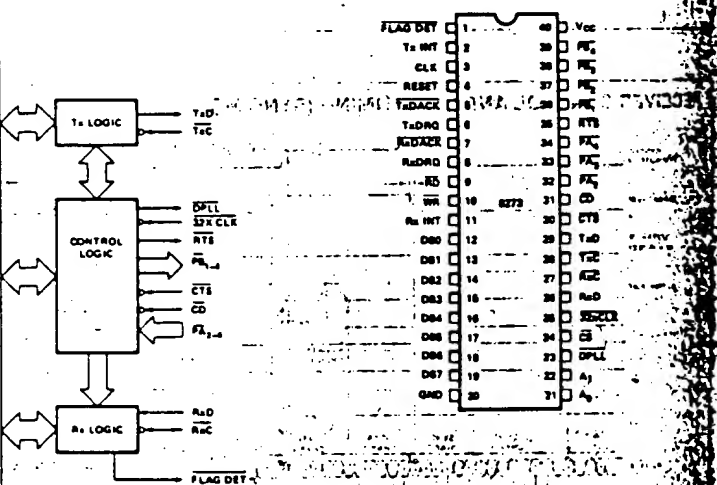


Figure 2. Pin Configuration

A BRIEF PROTOCOL

General

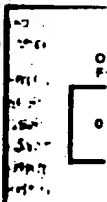
The High Level Communication Standards used to implement the Synchronous Communication Network are bit oriented duplex communication. They include the CPU, satellite high speed cabling and protocols (serial), the Since both Interconnection application

Network

In both the pre-assign controls to commands later appropriate station must ABORT character receiving a FRAME. Transmitted FLAGS or not permit more than one IDLE state

Frames

A single character can be used for purposes. It is an eight bit FIELD (C), sixteen bit eight bit or beginning bytes are



DL

3 Modem

30p Clock

48/8080/8085/
Plus ...

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ew high performance
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ystem CPU of the low

The High Level Data Link Control (HDLC) is a standard communication link protocol established by International Standards Organization (ISO). HDLC is the discipline used to implement ISO X.25 packet switching systems.

The Synchronous Data Link Control (SDLC) is an IBM communication link protocol used to implement the System Network Architecture (SNA). Both the protocols are bit oriented, code independent, and ideal for full duplex communication. Some common applications include terminal to terminal, terminal to CPU, CPU to CPU, satellite communication, packet switching and other high speed data links. In systems which require expensive cabling and interconnect hardware, any of the two protocols could be used to simplify interfacing (by going serial), thereby reducing interconnect hardware costs. Since both the protocols are speed independent, reducing interconnect hardware could become an important application.

In both the HDLC and SDLC line protocols, according to a pre-assigned hierarchy, a PRIMARY (Control) STATION controls the overall network (data link) and issues commands to the SECONDARY (Slave) STATIONS. The latter comply with instructions and respond by sending appropriate RESPONSES. Whenever a transmitting station must end transmission prematurely it sends an ABORT character. Upon detecting an abort character, a receiving station ignores the transmission block called a FRAME. Time fill between frames can be accomplished by transmitting either: continuous frame preambles called FLAGS or an abort character. A time fill within a frame is not permitted. Whenever a station receives a string of more than fifteen consecutive ones, the station goes into an IDLE state.

A single communication element is called a FRAME which can be used for both Link Control and data transfer purposes. The elements of a frame are the beginning eight bit FLAG (F) consisting of one zero, six ones, and a zero, an eight bit ADDRESS FIELD (A), an eight bit CONTROL FIELD (C), a variable (N-bit) INFORMATION FIELD (I), a sixteen bit FRAME CHECK SEQUENCE (FCS), and an eight bit END FLAG (F), having the same bit pattern as the beginning flag. In HDLC the Address (A) and Control (C) bytes are extendable. The HDLC and the SDLC use three

types of frames; an Information Frame is used to transfer data, a Supervisory Frame is used for control purposes, and a Non-sequenced Frame is used for initialization and control of the secondary stations.

An important characteristic of a frame is that its contents are made code transparent by use of a zero bit insertion and deletion technique. Thus, the user can adopt any format or code suitable for his system — it may even be a computer word length or a "memory dump". The frame is bit oriented that is, bits, not characters in each field, have specific meanings. The Frame Check Sequence (FCS) is an error detection scheme similar to the Cyclic Redundancy Checkword (CRC) widely used in magnetic disk storage devices. The Command and Response Information frames contain sequence numbers in the control fields, identifying the sent and received frames. The sequence numbers are used in Error Recovery Procedures (ERP) and as implicit acknowledgement of frame communication, enhancing the true full-duplex nature of the HDLC/SDLC protocols.

In contrast, BISYNC is basically half-duplex (two way, alternate) because of necessity to transmit immediate acknowledgement frames. HDLC/SDLC therefore saves propagation delay times and have a potential of twice the throughput rate of BISYNC.

It is possible to use HDLC or SDLC over half duplex lines but there is a corresponding loss in throughput because both are primarily designed for full-duplex communication. As in any synchronous system, the bit rate is determined by the clock bits supplied by the modem, protocols themselves are speed independent.

A byproduct of the use of zero-bit insertion-deletion technique is the non-return-to-zero invert (NRZI) data transmission/reception compatibility. The latter allows HDLC/SDLC protocols to be used with asynchronous data communication hardware in which the clocks are derived from the NRZI encoded data.

IBM Synchronous Data Link Control General Information, IBM, GA27-3093-1.
Standard Network Access Protocol Specification, DATAPAC, Trans-Canada Telephone System CCG111.
Recommendation X.25, ISO/CCITT March 2, 1978.
IBM 3650 Retail Store System Loop Interface OEM Information, IBM, GA27-3098-0.
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IBM Introduction to Teleprocessing, IBM, GC 20-8095-02.
System Network Architecture, Technical Overview, IBM, GA 27-3102.
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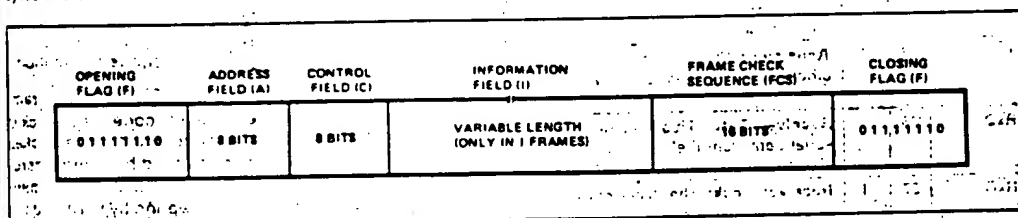


Figure 3. Frame Format

Table 1. Pin Description

Symbol	Pin No.	Type	Name and Function
Vcc	40	I/O	Power Supply: +5V Supply.
GND	20	I/O	Ground: Ground.
RESET	4	I	Reset: A high signal on this pin will force the 8273 to an idle state. The 8273 will remain idle until a command is issued by the CPU. The modem interface output signals are forced high. Reset must be true for a minimum of 10 TCY.
CS	24	I	Chip Select: The RD and WR inputs are enabled by the chip select input.
DB ₇ -DB ₀	19-12	I/O	Data Bus: The Data Bus lines are bi-directional three-state lines which interface with the system Data Bus.
WR	10	I	Write Input: The Write signal is used to control the transfer of either a command or data from CPU to the 8273.
RD	9	I	Read Input: The Read signal is used to control the transfer of either a data byte or a status word from the 8273 to the CPU.
TxDINT	2	O	Transmitter Interrupt: The Transmitter interrupt signal indicates that the transmitter logic requires service.
RxDINT	11	O	Receiver Interrupt: The Receiver interrupt signal indicates that the Receiver logic requires service.
TxDRO	6	O	Transmitter Data Request: Requests a transfer of data between memory and the 8273 for a transmit operation.
RxRDO	8	O	Receiver DMA Request: Requests a transfer of data between the 8273 and memory for a receive operation.
TxDACK	5	I	Transmitter DMA Acknowledge: The Transmitter DMA acknowledge signal notifies the 8273 that the TxDMA cycle has been granted.
RxDACK	7	I	Receiver DMA Acknowledge: The Receiver DMA acknowledge signal notifies the 8273 that the RxDMA cycle has been granted.
A ₁ -A ₀	22-21	I	Address: These two lines are CPU Interface Register Select lines.
TxD	29	O	Transmitter Data: This line transmits the serial data to the communication channel.
TxC	28	I	Transmitter Clock: The transmitter clock is used to synchronize the transmit data.
RxD	26	I	Receiver Data: This line receives serial data from the communication channel.
RxC	27	I	Receiver Clock: The Receiver Clock is used to synchronize the receive data.

Symbol	Pin No.	Type	Name and Function
32X CLK	25	I	32X Clock: The 32X clock is used to provide clock recovery when an asynchronous modem is used. In loop configuration the loop status can run without an accurate 1X clock by using the 32X CLK in conjunction with the DPLL output. (This pin must be grounded when not used.)
DPLL	23	O	Digital Phase Locked Loop: Digital Phase Locked Loop output can be tied to RxCLK and/or TxCLK when 1X clock is not available. DPPLL is used with 32X CLK.
FLAG DET	1	O	Flag Detect: Flag Detect signals that a flag (01111110) has been received by an active receiver.
RTS	35	O	Request to Send: Request to Send signals that the 8273 is ready to transmit data.
CTS	30	I	Clear to Send: Clear to Send signals that the modem is ready to accept data from the 8273.
CD	31	I	Carrier Detect: Carrier Detect signals that the line transmission has started and the 8273 may begin to sample data on RxCLK line.
PA ₀ -PA ₇	32-39	I/O	General purpose input ports: The logic levels on these lines can be read by the CPU through the Data Bus Buffer.
PB ₀ -PB ₇	36-43	O	General purpose output ports: The CPU can write these output lines through Data Bus Buffer.
CLK	3	I	Clock: A square wave TTL clock.

FUNCTIONAL DESCRIPTION

General description of the 8273, 8273A.

The Intel® 8273 HDLC/SDLC controller is a microcomputer peripheral device which supports the International Standards Organization (ISO) High Level Data Link Control (HDLC), and IBM Synchronous Data Link Control (SDLC) communications protocols. This controller minimizes CPU software by supporting a comprehensive frame-level instruction set and by hardware implementation of the low level tasks associated with frame assembly/disassembly and data integrity. The 8273 can be used in either synchronous or asynchronous applications.

In asynchronous applications the data can be programmed to be encoded/decoded in NRZI code. The clock is derived from the NRZI data using a digital phase locked loop. The data transparency is achieved by using a zero-bit insertion/deletion technique. The frames are automatically checked for errors during reception by verifying the Frame Check Sequence (FCS); the FCS is automatically generated and appended before the final flag in transmit.

The 8273 recognizes and can generate flags (01111110) End, Ide, and GA (EOP) characters.

The 8273 can assume either a primary (control) or a secondary (slave) role. It can therefore be readily implemented in an SDLC loop configuration as typified by the IBM 3650 Retail Store System by programming the 8273 into a one-bit delay mode. In such a configuration, a loop pair can be effectively used for data transfer between controllers and loop stations. The digital phase loop output pin can be used by the loop station to detect the presence of an accurate Tx clock.

CPU Interface
The CPU interface is optimized for the MCS-80/85™ bus as an 8257 DMA controller. However, the interface is flexible, and allows either DMA or non-DMA data transfer, interrupt or non-interrupt driven. It further allows maximum line utilization by providing early interrupt mechanism for buffered (only the information that can be transferred to memory) Tx command overruns. It also provides separate Rx and Tx interrupt channels for efficient operation. The 8273 keeps its interrupt request active until all the associated interrupt results have been read.

The CPU utilizes the CPU interface to specify commands and transfer data. It consists of seven registers addressed by A₁, A₀, RD and WR signals and two independent channels for receive data and transmit data. A₁, A₀ are normally derived from two low order bits of the address bus. If an 8080 based CPU is utilized, the RD and WR signals may be driven by the 8228 I/O_R and I/O_W. The table shows the seven register select decoding:

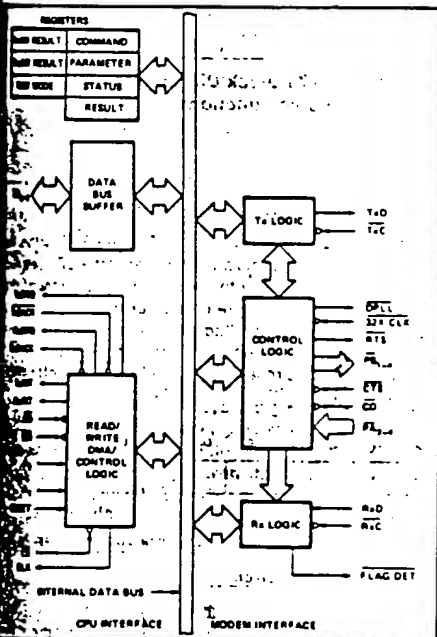


Figure 4. 8273 Block Diagram Showing CPU Interface Functions

A ₁	A ₀	TxDACK	RxDACK	CS	RD	WR	Register
0	0	1	1	0	1	0	Command
0	0	1	1	0	0	1	Status
0	1	1	1	0	1	0	Parameter
0	1	1	1	0	0	1	Result
1	0	1	1	0	1	0	Reset
1	0	1	1	0	0	1	TxINT Result
1	1	1	1	0	1	0	RxINT Result
1	1	1	1	0	0	1	RxINT Result
X	X	0	1	1	1	0	Transmit Data
X	X	1	0	1	0	1	Receive Data

Register Description

Command Operations are initiated by writing an appropriate command in the Command Register.

Parameter Parameters of commands that require additional information are written to this register.

Result Contains an immediate result describing an outcome of an executed command.

Transmit Interrupt Result Contains the outcome of 8273 transmit operation (good/bad completion), followed by additional results which detail the reason for interrupt.

Receive Interrupt Result Contains the outcome of 8273 receive operation (good/bad completion), followed by additional results which detail the reason for interrupt.

Status The status register reflects the state of the 8273 CPU interface.

DMA Data Transfers The 8273 CPU interface supports two independent data interfaces: receive data and transmit data. At high-data transmission speeds the data transfer rate of the 8273 is great enough to justify the use of direct memory access (DMA) for the data transfers. When the 8273 is configured in DMA mode, the elements of the DMA interfaces are:

TxDRO: Transmit DMA Request Requests a transfer of data between memory and the 8273 for a transmit operation.

TxDACK: Transmit DMA Acknowledge The TxDACK signal notifies the 8273 that a transmit DMA cycle has been granted. It is also used with WR to transfer data to the 8273 in non-DMA mode. Note: RD must not be asserted while TxDACK is active.

RxDRO: Receive DMA Request Requests a transfer of data between the 8273 and memory for a receive operation.

RxDACK: Receive DMA Acknowledge

The RxDACK signal notifies the 8273 that a receive DMA cycle has been granted. It is also used with RD to read data from the 8273 in non-DMA mode. Note: WR must not be asserted while RxDACK is active.

RD, WR: Read, Write

The RD and WR signals are used to specify the direction of the data transfer.

DMA transfers require the use of a DMA controller such as the Intel 8257. The function of the DMA controller is to provide sequential addresses and timing for the transfer, at a starting address determined by the CPU. Counting of data block lengths is performed by the 8273.

To request a DMA transfer the 8273 raises the appropriate DMA REQUEST, DMA ACKNOWLEDGE and READ enables DMA data onto the bus (independently of CHIP SELECT). DMA ACKNOWLEDGE and WRITE transfers DMA data to the 8273 (independent of CHIP SELECT).

It is also possible to configure the 8273 in the non-DMA data transfer mode. In this mode the CPU module must pass data to the 8273 in response to non-DMA data requests indicated by the status word.

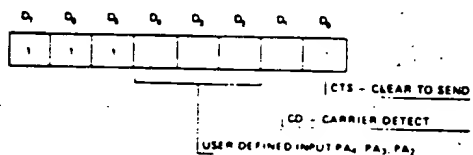
Modem Interface

The 8273 Modem Interface provides both dedicated and user defined modem control functions. All the control signals are active low so that EIA RS-232C inverting drivers (MC 1488) and inverting receivers (MC 1489) may be used to interface to standard modems. For asynchronous operation, this interface supports programmable NRZI data encode/decode, a digital phase locked loop for efficient clock extraction from NRZI data, and modem control ports with automatic CTS, CD monitoring and RTS generation. This interface also allows the 8273 to operate in PRE-FRAME SYNC mode in which the 8273 prefixes 16 transitions to a frame to synchronize idle lines before transmission of the first flag.

It should be noted that all the 8273 port operations deal with logical values, for instance, bit D0 of Port A will be a one when CTS (Pin 30) is a physical zero (logical one).

Port A — Input Port

During operation, the 8273 interrogates input pins CTS (Clear to Send) and CD (Carrier Detect). CTS is used to condition the start of a transmission. If during transmission CTS is lost the 8273 generates an interrupt. During reception, if CD is lost, the 8273 generates an interrupt.



The user defined input bits correspond to the 8273 PA₀, PA₁, and PA₂ pins. The 8273 does not interrogate or manipulate these bits.

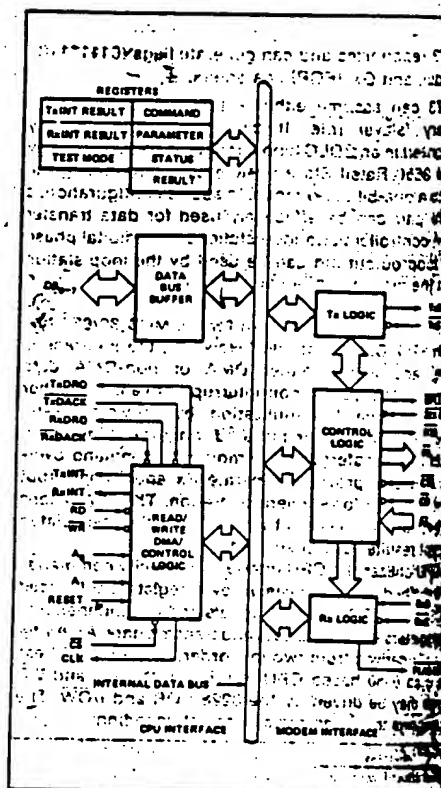
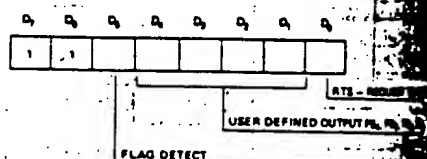


Figure 5. 8273 Block Diagram Showing Logic Functions

Port B — Output Port

During normal operation, if the CPU sets RTS active, the 8273 will not change this pin; however, if the CPU sets RTS inactive, the 8273 will activate it before each transmission and deactivate it one byte time after transmission. If the receiver is active the flag detect pin is pulsed with a flag sequence is detected in the receive data stream. Following an 8273 reset, all pins of Port B are set to the inactive level.



The user defined output bits correspond to the 8273 PB₀, PB₁, and PB₂ pins. The 8273 does not interrogate or manipulate these bits.

Data Logic

all data is synchronized by the user transmit ($\overline{\text{TxC}}$) and receive ($\overline{\text{RxC}}$) clocks. The leading edge of $\overline{\text{TxC}}$ is a new transmit data and the trailing edge of $\overline{\text{RxC}}$ to capture receive data. The NRZI encoding/decoding of the receive and transmit data is programmable.

Diagnostic features included in the Serial Data logic are programmable loop back of data and selectable clock receiver. In the loop-back mode, the data presented at the Rx pin is internally routed to the receive data input.

circuitry in place of the Rx pin, thus allowing a CPU to send a message to itself to verify operation of the 8273.

In the selectable clock diagnostic feature, when the data is looped back, the receiver may be presented incorrect sample timing by the external circuitry. The user may select to substitute the $\overline{\text{TxC}}$ pin for the $\overline{\text{RxC}}$ input on-chip so that the clock used to generate the loop back data is used to sample it. Since TxD is generated off the leading edge of $\overline{\text{TxC}}$ and RxD is sampled on the trailing edge, the selected clock allows bit synchronism.

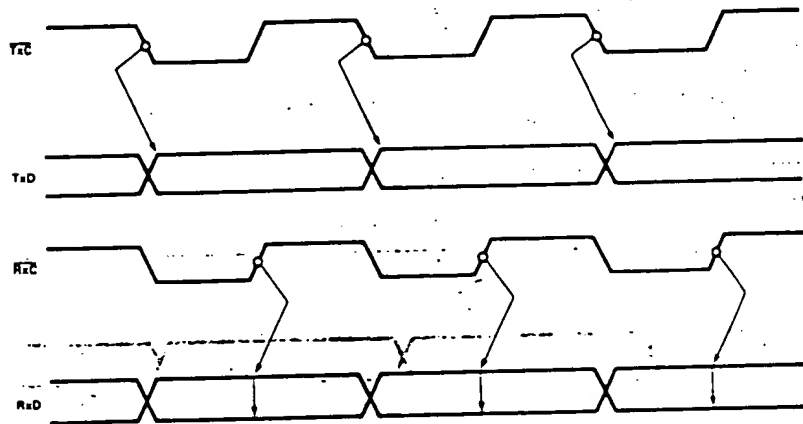


Figure 6. Transmit/Receive Timing

Asynchronous Mode Interface

Although the 8273 is fully compatible with the HDLC/SDLC communication line protocols, which are primarily used for synchronous communication, the 8273 can be used in asynchronous applications by using this interface. The interface employs a digital phase locked loop (DPLL) for clock recovery from a receive data stream. Programmable NRZI encoding and decoding of data, use of NRZI coding with SDLC transmission

guarantees that within a frame, data transitions will occur at least every five bit times — the longest sequence of ones which may be transmitted without zero-bit insertion. The DPLL should be used only when NRZI coding is used since the NRZI coding will transmit zero sequence as line transitions. The digital phase locked loop also facilitates full-duplex and half-duplex asynchronous implementation with, or without modems.

Digital Phase Locked Loop

In asynchronous applications, the clock is derived from the receiver data stream by the use of the digital phase locked loop (DPLL). The DPLL requires a clock input at 32 times the required baud rate. The receive data (Rx) is sampled with this 32X CLK and the 8273 DPLL supplies a sample pulse nominally centered on the Rx bit cells. The DPLL has a built-in "stiffness" which reduces sensitivity to line noise and bit distortion. This is accomplished by making phase error adjustments in discrete increments. Since the nominal pulse is made to occur at 32 counts of the 32X CLK, these counts are subtracted or added to the nominal, depending upon which quadrant of the four error quadrants the data edge occurs in. For example if an Rx edge is detected in quadrant A1, it is apparent that the DPLL sample "A" was placed too close to the trailing edge of the data cell; sample "B" will then be placed at $T = (T_{\text{nominal}} - 2 \text{ counts}) = 30$ counts of the 32X CLK to move the sample pulse "B" toward the nominal center of the next bit cell. A data edge occurring in quadrant B1 would cause a smaller adjustment of phase with $T = 31$ counts of the 32X CLK. Using this technique the DPLL pulse will converge to nominal bit center within 12 data bit times, worst case, with constant incoming Rx edges.

A method of attaining bit synchronism following a line idle is to use PRE-FRAME SYNC mode of transmission.

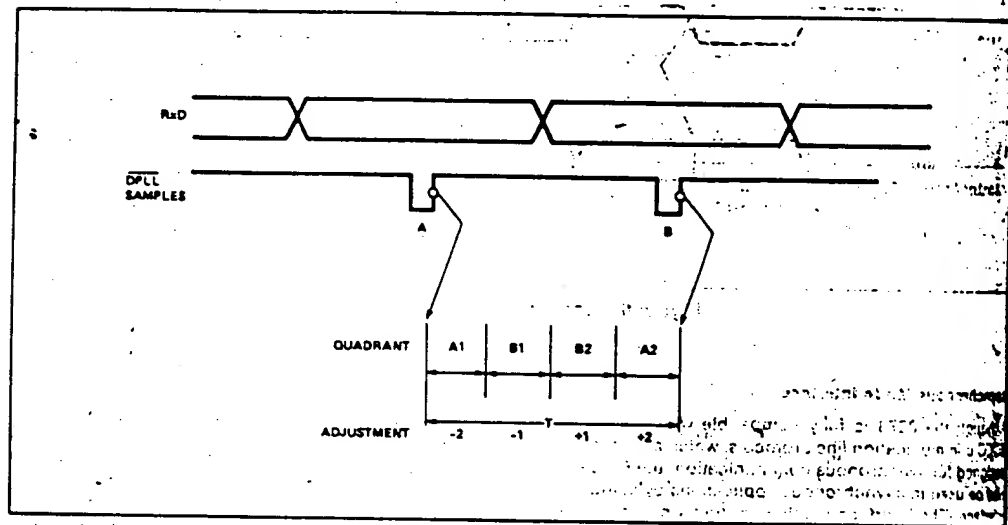
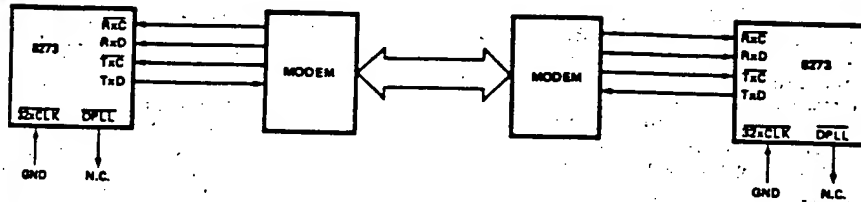
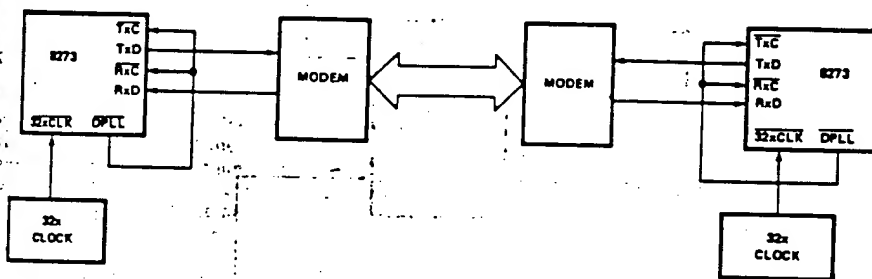


Figure 7. DPLL Sample Timing

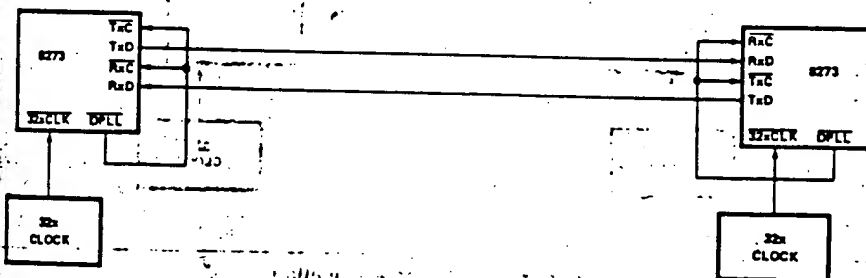
Asynchronous Modem — Duplex or Half Duplex Operation



Asynchronous Modems — Duplex or Half Duplex Operation



Asynchronous — No Modems — Duplex or Half Duplex



SDLC Loop

The DPLL simplifies the SDLC loop station implementation. In this application, each secondary station on a loop data link is a repeater set in one-bit delay mode. The signals sent out on the loop by the loop controller (primary station) are relayed from station to station then, back to the controller. Any secondary station finding its address in the A field captures the frame for action at that station. All received frames are relayed to the next station on the loop.

Loop stations are required to derive bit timing from the incoming NRZI data stream. The DPLL generates sample Rx clock timing for reception and uses the same clock to implement Tx clock timing.

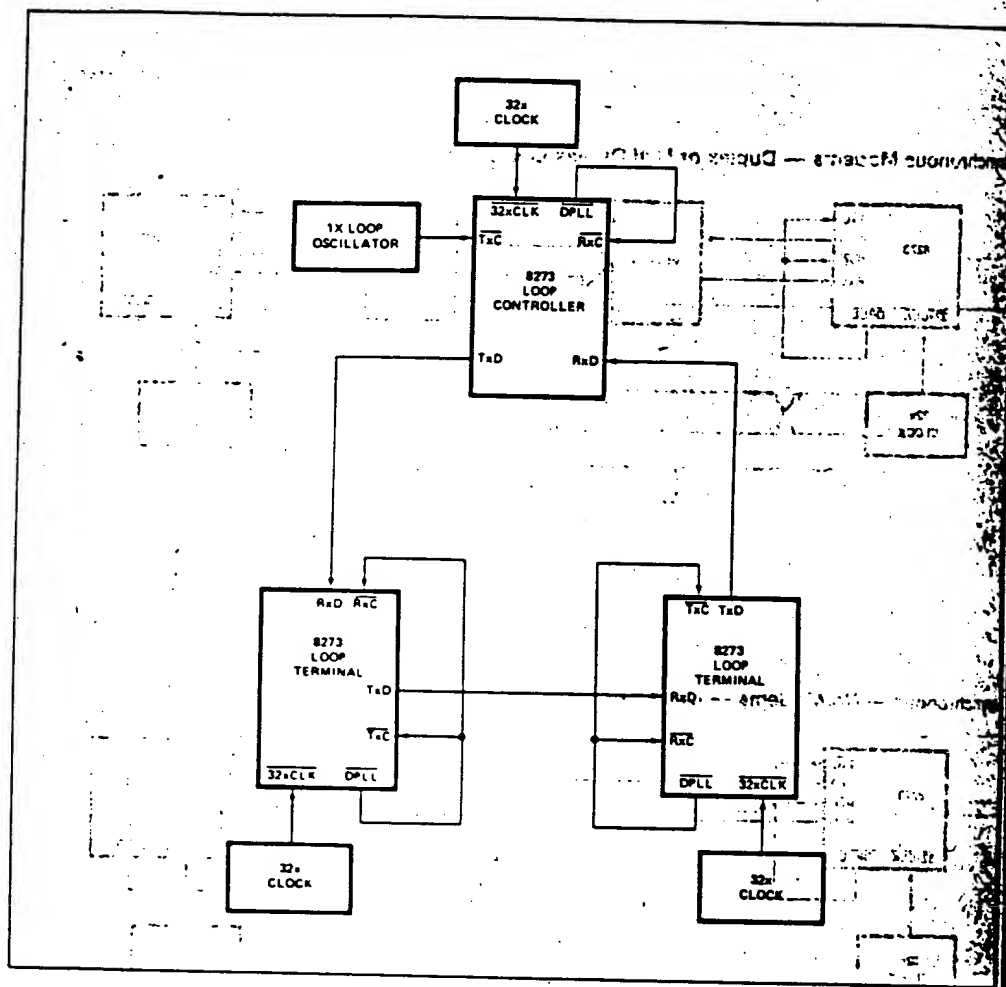


Figure 8. SDLC Loop Application

PRINC

The 8273 relieves the construct with the A field, accept command the CPU with the chip as d

The 8273 sequence

COMMAND
EXECUTION
RESULT

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During the mand to th vide a ge requested. A mation ab parameter: Sowchart r mand may that the de when the P will occur.

The 8273 receiver m results at interrupt pi ter must be

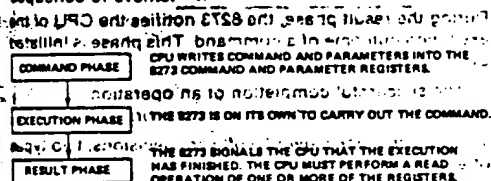
Status Reg
The status
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Bit 7 CBSY
Indicates ir
Command
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PRINCIPLES OF OPERATION

The 8273 is an intelligent peripheral controller which relieves the CPU of many of the rote tasks associated with constructing and receiving frames. It is fully compatible with the MCS-80/85™ system bus. As a peripheral device, it accepts commands from a CPU, executes these commands and provides an interrupt and Result back to the CPU at the end of the execution. The communication with the CPU is done by activation of CS, RD, WR pins, while the A1, A0 select the appropriate registers on the chip as described in the Hardware Description Section.

The 8273 operation is composed of the following sequence of events:



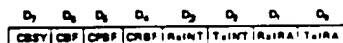
The Command Phase

During the command phase, the software writes a command to the command register. The command bytes provide a general description of the type of operation requested. Many commands require more detailed information about the command. In such a case up to four parameters are written into the parameter register. The flowchart of the command phase indicates that a command may not be issued if the Status Register indicates that the device is busy. Similarly if a parameter is issued when the Parameter Buffer shows full, incorrect operation will occur.

The 8273 is a duplex device and both transmitter and receiver may each be executing a command or passing results at any given time. For this reason separate interrupt pins are provided. However, the command register must be used for one command sequence at a time.

Status Register

The status register contains the status of the 8273 activity. The description is as follows.



Bit 7 CBSY (Command Busy)

Indicates in-progress command, set for CPU poll when Command Register is full, reset upon command phase completion. It is improper to write a command when CBSY is set; it results in incorrect operation.

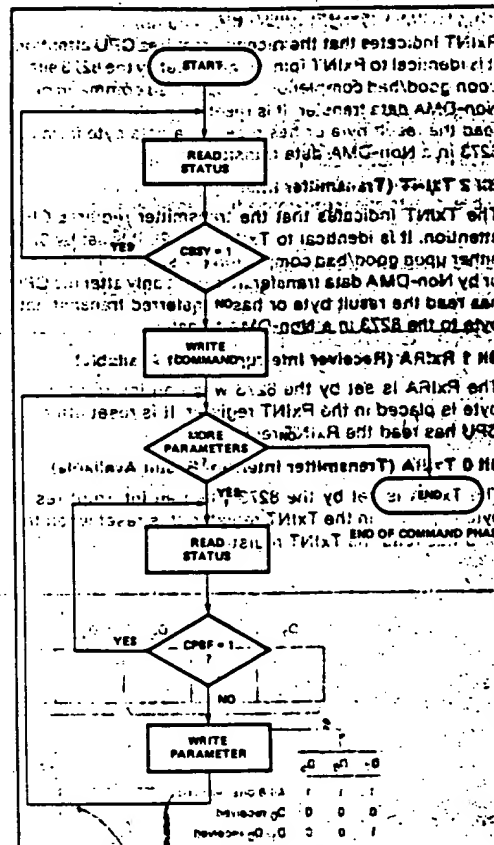


Figure 9. Command Phase Flowchart

Bit 6 CBF (Command Buffer Full)

Indicates that the command register is full, it is reset when the 8273 accepts the command byte but does not imply that execution has begun.

Bit 5 CPBF (Command Parameter Buffer Full)

CPBF is set when the parameter buffer is full, and is reset by the 8273 when it accepts the parameter. The CPU may poll CPBF to determine when additional parameters may be written.

Bit 4 CRBF (Command Result Buffer Full)

Indicates that an executed command immediate result is present in the Result Register. It is set by 8273 and reset when CPU reads the result.

Bit 3 RxINT (Receiver Interrupt)

RxINT indicates that the receiver requires CPU attention. It is identical to RxINT (pin 11) and is set by the 8273 either upon good/bad completion of a specified command or by Non-DMA data transfer. It is reset only after the CPU has read the result byte or has received a data byte from the 8273 in a Non-DMA data transfer.

Bit 2 TxINT (Transmitter Interrupt)

The TxINT indicates that the transmitter requires CPU attention. It is identical to TxINT (pin 2). It is set by 8273 either upon good/bad completion of a specified command or by Non-DMA data transfer. It is reset only after the CPU has read the result byte or has transferred transmit data byte to the 8273 in a Non-DMA transfer.

Bit 1 RxIRA (Receiver Interrupt Result Available)

The RxIRA is set by the 8273 when an interrupt result byte is placed in the RxINT register. It is reset after the CPU has read the RxINT register.

Bit 0 TxIRA (Transmitter Interrupt Result Available)

The TxIRA is set by the 8273 when an interrupt result byte is placed in the TxINT register. It is reset when the CPU has read the TxINT register.

PRINCIPLES OF OPERATION

Upon accepting the last parameter, the 8273 enters into the Execution Phase. The execution phase may consist of a DMA or other activity, and may or may not require CPU intervention. The CPU intervention is eliminated in this phase if the system utilizes DMA for the data transfers, otherwise, for non-DMA data transfers, the CPU is interrupted by the 8273 via TxINT and RxINT pins. For each data byte request, the CPU must read the data from the 8273 via TxINT and RxINT pins. A write error is detected as a result of a failed write operation.

The Result Phase

During the result phase, the 8273 notifies the CPU of the execution outcome of a command. This phase is initiated by:

1. The successful completion of an operation.
2. An error detected during an operation.

To facilitate quick network software decisions, two types of execution results are provided:

1. An Immediate Result
2. A Non-Immediate Result

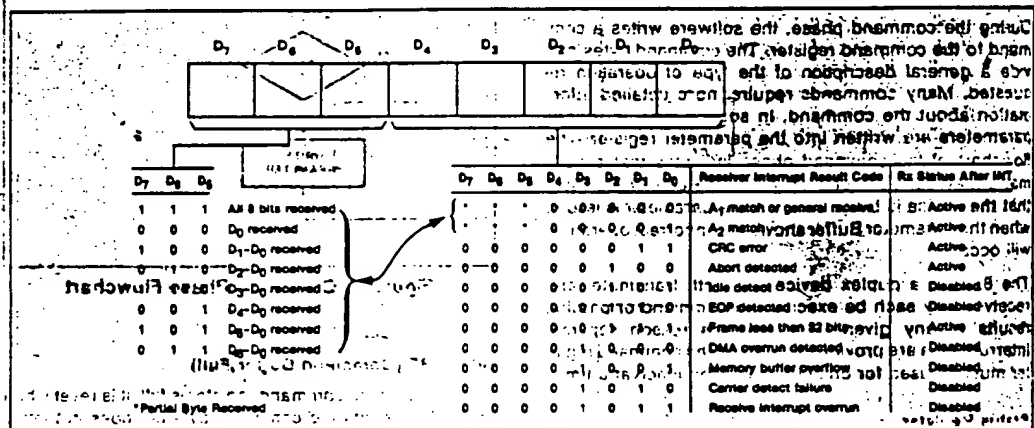
The Command Phase

Figure 10. Rx Interrupt Result Byte Format

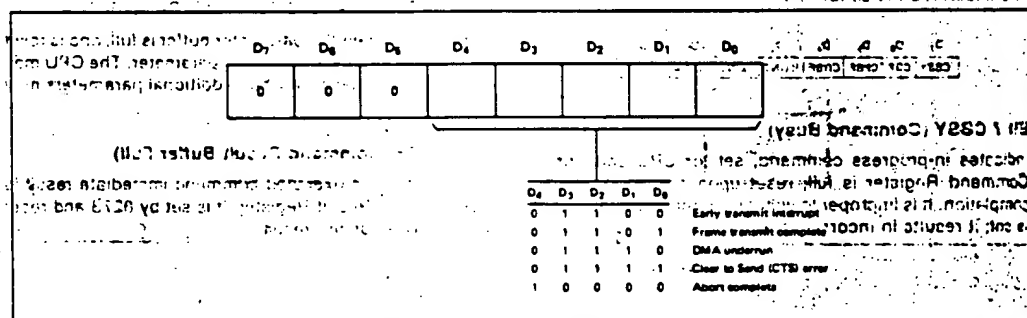


Figure 11. Tx Interrupt Result Byte Format

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Immediate result is provided by the 8273 for commands such as Read Port A and Read Port B which have information (CTS, CD, RTS, etc.) that the network software needs to make quick operational decisions.

A command which cannot provide an immediate result will generate an interrupt to signal the beginning of the Result phase. The immediate results are provided in the Result Register; all non-immediate results are available upon device interrupt, through Tx Interrupt Result Register TxI/R or Rx Interrupt Result Register RxI/R. The result may consist of a one-byte interrupt code indicating the

condition for the interrupt and, if required, one or more bytes which detail the condition.

Tx and Rx Interrupt Result Registers

The Result Registers have a result code, the three high order bits D7-D5 of which are set to zero for all but the receive command. This command result contains a count that indicates the number of bits received in the last byte. If a partial byte is received, the high order bits of the last data byte are indeterminate.

All results indicated in the command summary must be read during the result phase.

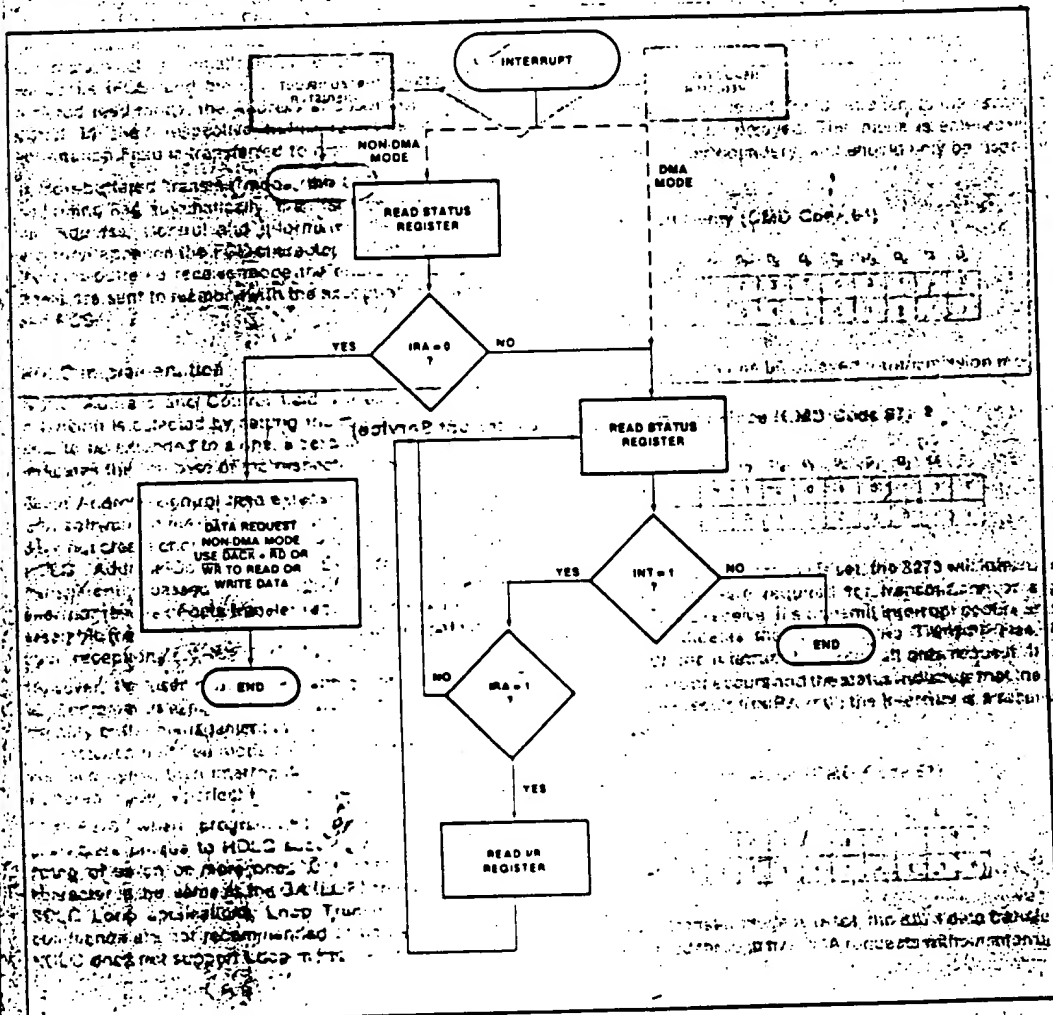


Figure 12. Result Phase Flowchart—Interrupt Results

IMMEDIATE RESULTS

After command phase completion (read port A, port B, or port C), the 8273 will return the results of the command. The results are returned in the status register (SR) and the result register (RR). The status register contains the command code, the command status, and the command error code. The result register contains the data returned by the command. The command code is a 4-bit field that identifies the command. The command status is a 1-bit field that indicates whether the command was successful. The command error code is a 4-bit field that identifies the error. The data returned by the command is a 16-bit field.

The 8273 will return the results of the command in the status register (SR) and the result register (RR). The status register contains the command code, the command status, and the command error code. The result register contains the data returned by the command. The command code is a 4-bit field that identifies the command. The command status is a 1-bit field that indicates whether the command was successful. The command error code is a 4-bit field that identifies the error. The data returned by the command is a 16-bit field.

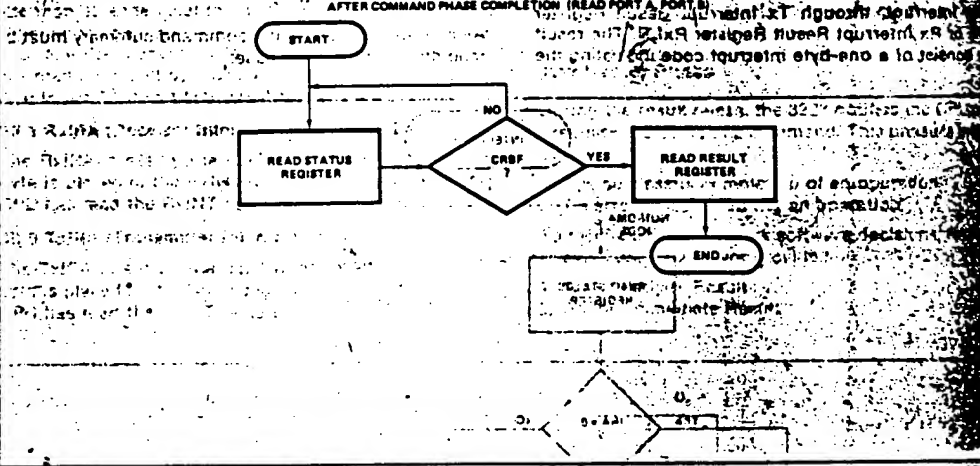


Figure 13. (Rx Interrupt Service)

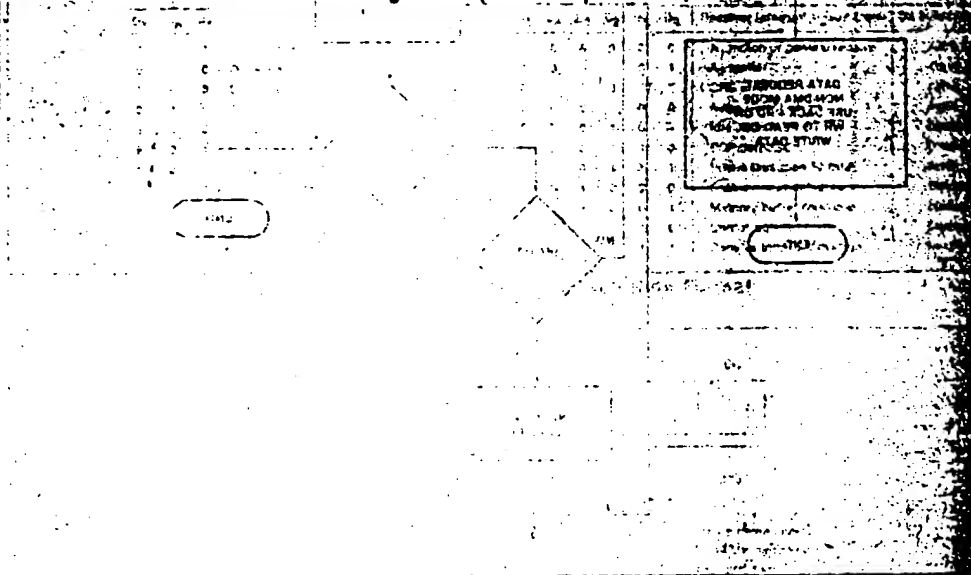


Figure 13. (Rx Interrupt Service)

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DETAILED COMMAND DESCRIPTION

General

The 8273 HDLC/SDLC controller supports a comprehensive set of high level commands which allows the 8273 to be readily used in full-duplex, half-duplex, synchronous, asynchronous and SDLC loop configuration, with or without modems. These frame-level commands minimize CPU and software overhead. The 8273 has address and control byte buffers which allow the receive and transmit commands to be used in buffered or non-buffered modes.

In buffered transmit mode, the 8273 transmits a flag automatically, reads the Address and Control buffer registers and transmits the fields, then via DMA, it fetches the Information field. The 8273, having transmitted the Information field, automatically appends the Frame Check Sequence (FCS) and the end flag. Correspondingly, in buffered read mode, the Address and Control fields are stored in their respective buffer registers and only Information Field is transferred to memory.

In non-buffered transmit mode, the 8273 transmits the beginning flag automatically, then fetches and transmits the Address, Control and Information fields from the memory, appends the FCS character and an end flag. In the non-buffered receive mode the entire contents of a frame are sent to memory with the exception of the flags and FCS.

HDLC Implementation

HDLC Address and Control fields are extendable. The extension is selected by setting the low order bit of the field to be extended to a one, a zero in the low order bit indicates the last byte of the respective field. Since Address/Control field extension is normally done with software to maximize extension flexibility, the 8273 does not create or operate upon contents of the extended HDLC Address/Control fields. Extended fields are transparently passed by the 8273 to user as either interrupt results of data transfer requests. Software must assemble the fields for transmission and interrogate them upon reception.

However, the user can take advantage of the powerful 8273 commands to minimize CPU/Software overhead and simplify buffer management in handling extended fields. For instance buffered mode can be used to separate the first two bytes, then interrogate the others from buffer. Buffered mode is perfect for a two byte address field.

The 8273 when programmed, recognizes protocol characters unique to HDLC such as Abort, which is a string of seven or more ones (01111111). Since Abort character is the same as the GA (EOP) character used in SDLC Loop applications, Loop Transmit and Receive commands are not recommended to be used in HDLC. HDLC does not support Loop mode.

Initialization Set/Reset Commands

These commands are used to manipulate data within the 8273 registers. The Set commands have a single parameter which is a mask that corresponds to the bits to be set. (They perform a logical-OR of the specified register with the mask provided as a parameter). The Register commands have a single parameter which is a mask that has a zero in the bit positions that are to be reset. (They perform a logical-AND of the specified register with the mask).

Set One-Bit Delay (CMD Code A4)

	A ₇	A ₆	A ₅	A ₄	A ₃	A ₂	A ₁	A ₀
CMD:	0	0	1	0	1	0	0	1
PAR:	0	1	1	0	0	0	0	0

When one bit delay is set, 8273 retransmits the received data stream one bit delayed. This mode is entered at a receiver character boundary, and should only be used by Loop Stations.

Reset One-Bit Delay (CMD Code 84)

	A ₇	A ₆	A ₅	A ₄	A ₃	A ₂	A ₁	A ₀
CMD:	0	0	0	1	1	0	0	0
PAR:	0	1	0	1	0	0	1	1

The 8273 stops the one bit delayed retransmission mode.

Set Data Transfer Mode (CMD Code 97)

	A ₇	A ₆	A ₅	A ₄	A ₃	A ₂	A ₁	A ₀
CMD:	0	0	1	0	0	0	0	0
PAR:	0	1	0	0	0	0	0	0

When the data transfer mode is set, the 8273 will interrupt when data bytes are required for transmission or are available from a receive. If a transmit interrupt occurs and the status indicates that there is no transmit result (TxIRA = 0), the interrupt is a transmit data request. If a receive interrupt occurs and the status indicates that there is no receive result (RxIRA = 0), the interrupt is a receive data request.

Reset Data Transfer Mode (CMD Code 57)

	A ₇	A ₆	A ₅	A ₄	A ₃	A ₂	A ₁	A ₀
CMD:	0	0	0	1	0	1	0	1
PAR:	0	1	1	0	1	1	1	0

If the Data Transfer Mode is reset, the 8273 data transfers are performed through the DMA requests without interrupting the CPU.

8a) Operating Mode (CMD Code 91)

[illegible]

Reset Operating Mode (CMD Code 51)

	A ₁	A ₂	D ₁	D ₂	D ₃	D ₄	D ₅	D ₆	D ₇	D ₈
CMO	0	0	0	1	0	1	0	0	0	1
PAR	0	1	1	1						

Any mode switches set in CMD code 91 can be reset using this command by placing zeros in the appropriate positions.

(D5) HDLC Mode

In HDLC mode, a bit sequence of seven ones (0111111) is interpreted as an abort character. Otherwise, eight ones (01111111) signal an abort.

(D4) EOP Interrupt Mode (MD) eocM value:

In EOP Interrupt mode, an interrupt is generated whenever an EOP character (01111111) is detected by an active receiver. This mode is useful for the implementation of an SDLC loop controller in detecting the end of a message stream after a loop poll.

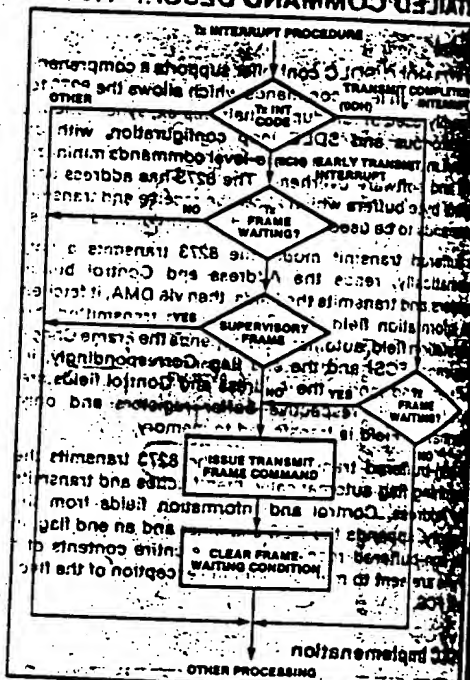
(D3) Transmitter Early Interrupt Mode (Tx)

The early interrupt mode is specified to indicate when the 8273 should generate an end of frame interrupt. When set, an early interrupt is generated when the last data character has been passed to the 8273. If the user software responds with another transmit command before the final flag is sent, the final flag interrupt will not be generated and a new frame will immediately begin when the current frame is complete. This permits frames to be separated by a single flag. If no additional Tx commands are provided, a final interrupt will follow.

Note: In buffered mode, if a supervisory frame (no information) Transmit command is sent in response to an early Transmit Interrupt, the 8273 will repeatedly transmit the same supervisory frame with one flag in between, until a non-supervisory transmit is issued.

Early transmitter interrupt can be used in buffered mode by waiting for a transmit complete interrupt instead of early transmit interrupt before issuing a transmit frame command for a supervisory frame. See Figure 14.

DESCRIPTION



If this bit is zero, the interrupt will be generated only if the final flag has been transmitted.

(D2) Buffered Mode

If the buffered mode bit is set to a one, the first two bytes (normally the address (A) and control (C) fields) of a frame are buffered by the 8273. If this bit is a zero, the address and control fields are passed to and from memory.

(D1) Preframe Sync

If this bit is set to a one the 8273 will transmit two data bytes before the first flag of a frame.

To guarantee sixteen line transitions, the 8273 sends 16 bytes of data (00_h if NRZI is set or data (55_h if NRZI is not set.

(D0) Flag Stream Mode

If this bit is set to a one, the following table outlines the operation of the transmitter.

TRANSMITTER STATE	RECEIVER ACTION
Idle	Send Flags immediately.
Transmit or Transmit-Transparent Active	Send Flags after the transmission complete.
Loop Transmit Active	Ignore command.
1 Bit Delay Active	Ignore command.

The bit is reset
operation of the 1

TRANSMITTER

Transmit or Trans
transparent Acti
Loop Transmit A
1 Bit Delay Actin

Serial I/O Mode

0	1	2	3
0	1	2	3

Reset Serial I/O

the command all
placing zeros

	A ₁	A ₂
CMD:	0	1
PAR:	0	1

(D4) Loop Back

able bit is set to a 1 in the receive data

DO TxC \rightarrow RxC

this bit is set to
 routed to the rece
 with the loop back

DD) NRZI Mode

This bit is set to transmit and receive bit stream.

NRZI encoding specifies polarity of the transfer change. NRZI is similar to IBM docu

West Device Co

	A ₁	A ₀
TMR:	1	0
TMR:	1	0

A 8273 reset command followed by (00)_H 1 timing charac

This bit is reset to zero the following table outlines the operation of the transmitter.

TRANSMITTER STATE	ACTION
IDLE	Send Idles on next character boundary.
Transmit or Transmit-Transparent Active	Send Idles after the transmission is complete.
Loop Transmit Active	Ignore command.
1 Bit Delay Active	Ignore command.

Serial I/O Mode (CMD Code A0)

A ₁	A ₀	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
0	0	1	0	1	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0

Serial I/O Mode (CMD Code 60)

This command allows bits set in CMD code A0 to be reset by placing zeros in the appropriate positions.

A ₁	A ₀	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
0	0	0	0	0	0	0	0	0	0
0	1	1	1	1	1	1	1	1	1

Loop Back

This bit is set to a one, the transmit data is internally routed to the receive data circuitry.

TrC → RxC

This bit is set to a one, the transmit clock is internally used to the receive clock circuitry. It is normally used with the loop back bit (D2).

NRZI Mode

This bit is set to a one, NRZI encoding and decoding of transmit and receive data is provided. If this bit is a zero, the transmit and receive data is treated as a normal positive logic stream.

NRZI encoding specifies that a zero causes a change in the polarity of the transmitted signal and a one causes no polarity change. NRZI is used in all asynchronous operations. Refer to IBM document GA27-3093 for details.

Device Command

A ₁	A ₀	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

8273 reset command is executed by outputting a (01)_H followed by (00)_H to the reset register (TMR). See 8273 timing characteristics for Reset pulse specifications.

The reset command emulates the action of the reset pin.

1. The modem control signals are forced high (inactive level).
2. The 8273 status register flags are cleared.
3. Any commands in progress are terminated immediately.
4. The 8273 enters an idle state until the next command is issued.
5. The Serial I/O and Operating Mode registers are set to zero and DMA data register transfer mode is selected.
6. The device assumes a non-loop SDLC terminal role.

Receive Commands

The 8273 supports three receive commands: General Receive, Selective Receive, and Selective Loop Receive.

General Receive (CMD Code C0)

General receive is a receive mode in which frames are received regardless of the contents of the address field.

A ₁	A ₀	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
0	0	1	1	0	0	0	0	0	0
0	1	LEAST SIGNIFICANT BYTE OF THE RECEIVE BUFFER LENGTH (B0)							
0	1	MOST SIGNIFICANT BYTE OF RECEIVE BUFFER LENGTH (B1)							

NOTES:

1. If buffered mode is specified, the R0, R1 receive frame length (result) is the number of data bytes received.
2. If non-buffered mode is specified, the R0, R1 receive frame length (result) is the number of data bytes received plus two (the count includes the address and control bytes).
3. The frame check sequence (FCS) is not transferred to memory.
4. Frames with less than 32 bits between flags are ignored (no interrupt generated) if the buffered mode is specified.
5. In the non-buffered mode an interrupt is generated when a less than 32 bit frame is received, since data transfer requests have occurred.
6. The 8273 receiver is always disabled when an idle is received after a valid frame. The CPU module must issue a receive command to re-enable the receiver.
7. The intervening ABORT character between a final flag and an IDLE does not generate an interrupt.
8. If an ABORT Character is not preceded by a flag and is followed by an IDLE, an interrupt will be generated for the ABORT followed by an IDLE interrupt one character time later. The reception of an ABORT will disable the receiver.

Selective Receive (CMD Code C1)

A ₁	A ₀	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
0	0	1	1	0	0	0	0	0	1
0	1	LEAST SIGNIFICANT BYTE OF THE RECEIVE BUFFER LENGTH (B0)							
0	1	MOST SIGNIFICANT BYTE OF RECEIVE BUFFER LENGTH (B1)							
0	1	RECEIVE FRAME ADDRESS MATCH FIELD ONE (A1)							
0	1	RECEIVE FRAME ADDRESS MATCH FIELD TWO (A2)							

Selective receive is a receive mode in which frames are ignored unless the address field matches any one of two address fields given to the 8273 as parameters.

When selective receive is used in HDLC the 8273 looks at the first character, if extended, software must then decide if the message is for this unit.

Selective Loop Receive (CMD Code C2)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	0	0	1	0
PAR:	0	0	1	1	0	0	0	0	1	0
PAR:	0	1	1	1	0	0	0	0	1	0
PAR:	0	1	1	1	0	0	0	0	1	0
PAR:	0	1	1	1	0	0	0	0	1	0
PAR:	0	1	1	1	0	0	0	0	1	0

Selective loop receive operates like selective receive except that the transmitter is placed in flag stream mode automatically after detecting an EOP (01111111) following a valid received frame. The one bit delay mode is also reset at the end of a selective loop receive.

Receive Disable (CMD Code C5)

Terminates an active receive command immediately.

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	0	1	0	1

Transmit Commands

The 8273 supports three transmit commands: Transmit Frame, Loop Transmit, Transmit Transparent.

Transmit Frame (CMD Code C8)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	1	0	0	0
PAR:	0	1	1	1	0	0	1	0	0	0
PAR:	0	1	1	1	0	0	1	0	0	0
PAR:	0	1	1	1	0	0	1	0	0	0
PAR:	0	1	1	1	0	0	1	0	0	0
PAR:	0	1	1	1	0	0	1	0	0	0

Transmits one frame including: initial flag, frame check sequence, and the final flag.

If the buffered mode is specified, the L0, L1, frame length provided as a parameter is the length of the information field and the address and control fields must be input.

In unbuffered mode the frame length provided must be the length of the information field plus two and the address and control fields must be the first two bytes of data. Thus only the frame length bytes are required as parameters.

Loop Transmit (CMD Code CA)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	1	0	1	0
PAR:	0	0	1	1	0	0	1	0	1	0
PAR:	0	0	1	1	0	0	1	0	1	0
PAR:	0	0	1	1	0	0	1	0	1	0
PAR:	0	0	1	1	0	0	1	0	1	0
PAR:	0	0	1	1	0	0	1	0	1	0

Transmits one frame in the same manner as the transmit frame command except:

1. If the flag stream mode is not active transmission begins after a received EOP has been converted to flag.
2. If the flag stream mode is active transmission begins at the next flag boundary for buffered mode and the third flag boundary for non-buffered mode.
3. At the end of a loop transmit the one-bit delay mode entered and the flag stream mode is reset.

Transmit Transparent (CMD Code C9)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	1	0	0	1
PAR:	0	0	1	1	0	0	1	0	0	1
PAR:	0	0	1	1	0	0	1	0	0	1
PAR:	0	0	1	1	0	0	1	0	0	1
PAR:	0	0	1	1	0	0	1	0	0	1
PAR:	0	0	1	1	0	0	1	0	0	1

The 8273 will transmit a block of raw data without protocol, i.e., no zero bit insertion, flags, or frame delimiters.

Abort Transmit Commands

An abort command is supported for each type of transmit command. The abort commands are ignored if a transmit command is not in progress.

Abort Transmit Frame (CMD Code CC)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	1	0	1	0

After an abort character (eight contiguous ones) is transmitted, the transmitter reverts to sending flags or data function of the flag stream mode specified.

Abort Loop Transmit (CMD Code CE)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	1	0	1	0

After a flag is transmitted the transmitter reverts to delay mode.

Abort Transmit Transparent (CMD Code CD)

CMD:	A ₁	A ₂	D ₇	D ₆	D ₅	D ₄	D ₃	D ₂	D ₁	D ₀
PAR:	0	0	1	1	0	0	1	0	1	0

The transmitter reverts to sending flags or data function of the flag stream mode specified.

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Modem Control Commands

Modem control commands are used to manipulate the modem control ports.

Read Port A or Port B commands are executed. The result of the command is returned in the result register. The Bit Set Port B command requires a parameter that is a mask that corresponds to the bits to be set. The Bit Reset Port B command requires a mask that has a zero in the bit positions that are to be reset.

Read Port A (CMD Code 22)

Cmd:

A1	A0	D7	D6	D5	D4	D3	D2	D1	D0	
0	0	0	0	0	1	0	0	0	1	0

PAR: NONE

Read Port B (CMD Code 23)

Cmd:

A1	A0	D7	D6	D5	D4	D3	D2	D1	D0	
0	0	0	0	0	1	0	0	0	1	1

PAR: NONE

Set Port B Bits (CMD Code A3)

This command allows user defined Port B pins to be set.

Cmd:

A1	A0	D7	D6	D5	D4	D3	D2	D1	D0
0	0	1	0	1	0	0	0	1	1

PAR:

0	1	0	0
---	---	---	---

RTS - REQUEST TO SEND
USER DEFINED
FLAG DETECT

(D5) Flag Detect

This bit can be used to set the flag detect pin. However, it will be reset when the next flag is detected.

(D4-D1) User Defined Outputs

These bits correspond to the state of the PB4-PB1 output pins.

(D0) Request to Send

This is a dedicated 8273 modem control signal, and reflects the same logical state of RTS pin.

Reset Port B Bits (CMD Code 63)

This command allows Port B user defined bits to be reset.

Cmd:

A1	A0	D7	D6	D5	D4	D3	D2	D1	D0
0	0	0	1	1	0	0	0	1	1

PAR:

0	1	1	1
---	---	---	---

RTS - REQUEST TO SEND
USER DEFINED
FLAG DETECT

This command allows Port B (D4-D1) user defined bits to be reset. These bits correspond to Output Port pins (PB4-PB1).

Command Summary

Command Description	Command (HEX)	Parameter	Results	Result Port	Completion Interrupt
Set One Bit Delay	A4	Set Mask	None	—	No
Reset One Bit Delay	64	Reset Mask	None	—	No
Set Data Transfer Mode	97	Set Mask	None	—	No
Reset Data Transfer Mode	57	Reset Mask	None	—	No
Set Operating Mode	91	Set Mask	None	—	No
Reset Operating Mode	51	Reset Mask	None	—	No
Set Serial I/O Mode	A0	Set Mask	None	—	No
Reset Serial I/O Mode	60	Reset Mask	None	—	No
General Receive	C0	B0.B1	RIC,R0,R1,(A,C) ²	RX1/R	Yes
Selective Receive	C1	B0.B1,A1 A2	RIC,R0,R1,(A,C) ²	RX1/R	Yes
Selective Loop Receive	C2	B0.B1,A1 A2	RIC,R0,R1,(A,C) ²	RX1/R	Yes
Receive Disable	C5	None	None	—	No
Transmit Frame	C8	L0,L1,(A,C) ²	TIC	TX1/R	Yes
Loop Transmit	CA	L0,L1,(A,C) ²	TIC	TX1/R	Yes
Transmit Transparent	C9	L0,L1	TIC	TX1/R	Yes
Abort Transmit Frame	CC	None	TIC	TX1/R	Yes
Abort Loop Transmit	CE	None	TIC	TX1/R	Yes
Abort Transmit Transparent	CD	None	TIC	TX1/R	Yes
Read Port A	22	None	Port Value	Result	No
Read Port B	23	None	Port Value	Result	No
Set Port B Bit	A3	Set Mask	None	—	No
Reset Port B Bit	63	Reset Mask	None	—	No

NOTES:

1. Issued only when in buffered mode.
2. Read as results only in buffered mode.

8273 Command Summary Key

- B0 — Least significant byte of the receive buffer length.
- B1 — Most significant byte of the receive buffer length.
- L0 — Least significant byte of the Tx frame length.
- L1 — Most significant byte of the Tx frame length.
- A1 — Receive frame address match field one.
- A2 — Receive frame address match field two.
- A — Address field of received frame. If non-buffered mode is specified, this result is not provided.
- C — Control field of received frame. If non-buffered mode is specified this result is not provided.
- RXIR — Receive interrupt result register.
- TXUR — Transmit interrupt result register.
- R0 — Least significant byte of the length of the frame received.
- R1 — Most significant byte of the length of the frame received.
- RIC — Receiver interrupt result code.
- TIC — Transmitter interrupt result code.

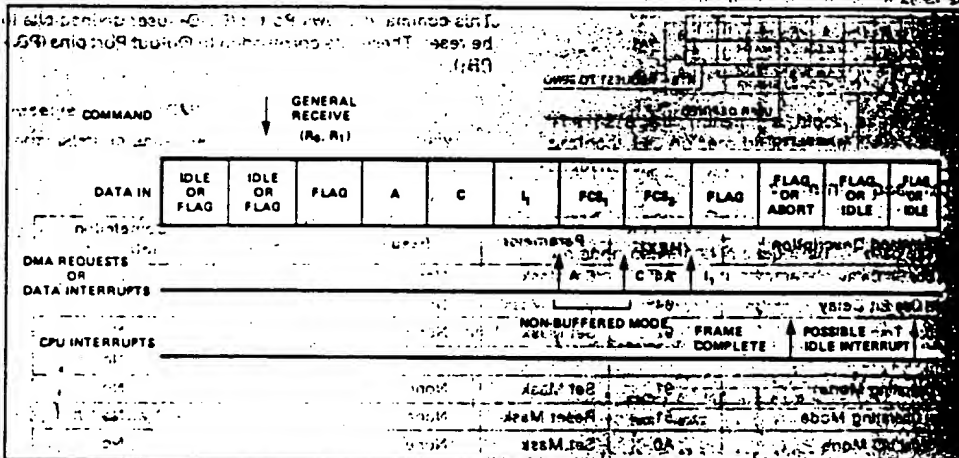


Figure 15. Typical Frame Reception

NOTE:

In order to ensure proper operation to the maximum baud rate, Receive commands or Read/Write Port commands should be issued only when either the transmitter or the receiver is inactive. In full duplex systems, it is recommended that these commands be issued after servicing a transmitter interrupt but before a new transmit command is issued.

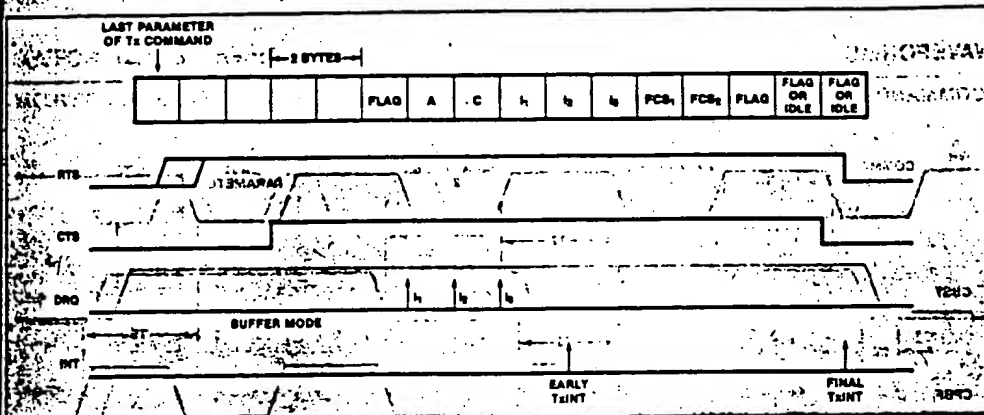


Figure 16a. Typical Frame Transmission, Buffered Mode

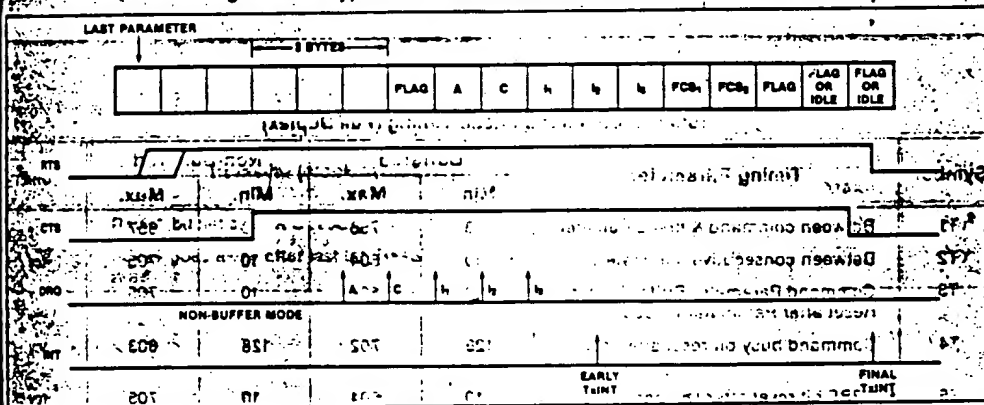


Figure 16b. Typical Frame Transmission, Non-Buffered Mode

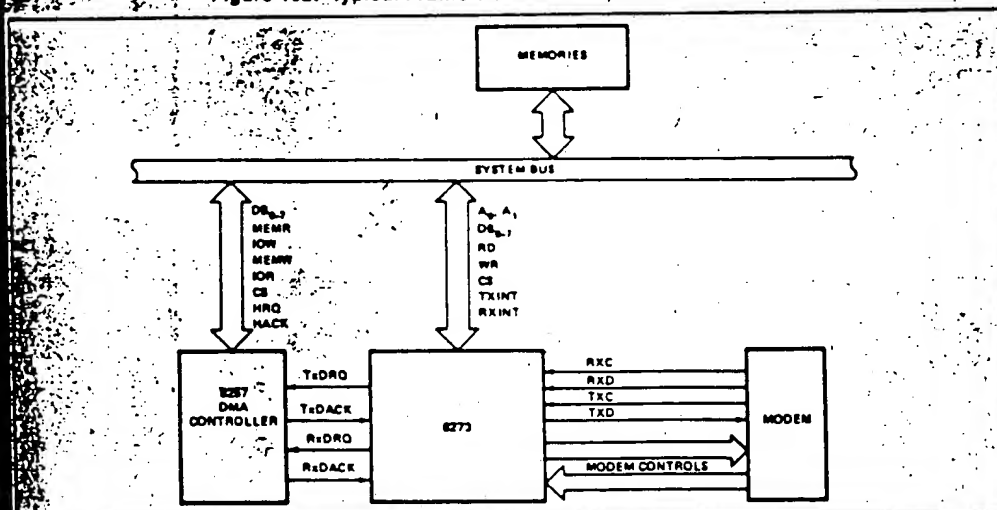


Figure 17. 8273 System Diagram

WAVEFORMS

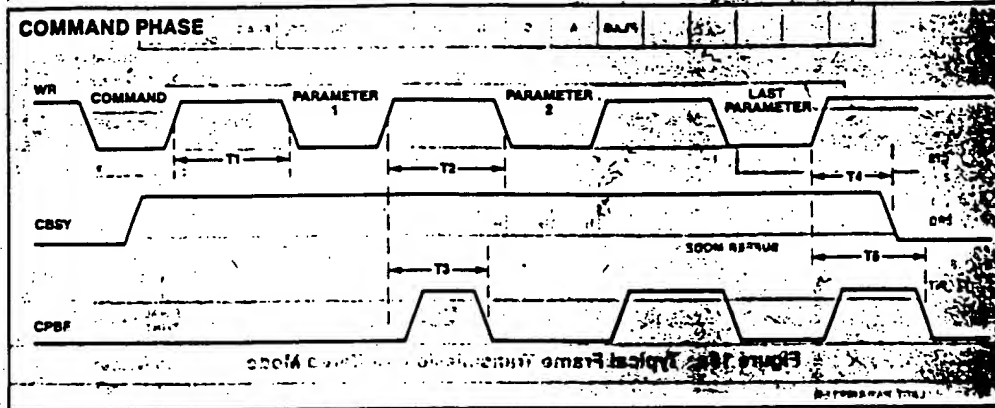
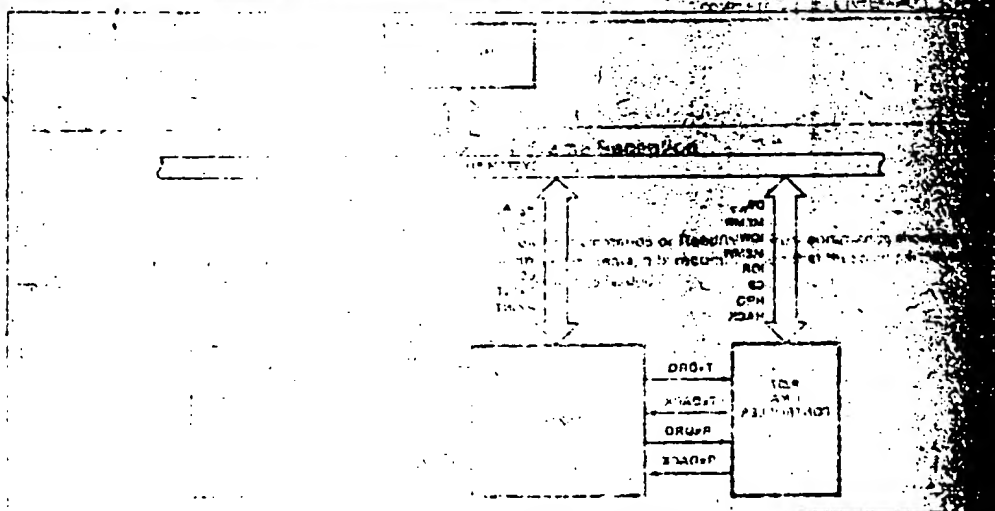


Table 2. Command Phase Timing (Full Duplex)

Symbol	Timing Parameter	Buffered		Non-Buffered		Unit
		Min.	Max.	Min.	Max.	
T1	Between command & first parameter	13	756	13	857	ns
T2	Between consecutive parameters	10	804	10	705	ns
T3	Command Parameter Buffer full bit. Reset after Parameter loaded	10	804	10	705	ns
T4	Command busy bit reset after last parameter	128	702	128	803	ns
T5	CPBF bit reset after last parameter	10	804	10	705	ns



ABSOLUTE MAXIMUM RATINGS

WAVEFORMS (Continued)

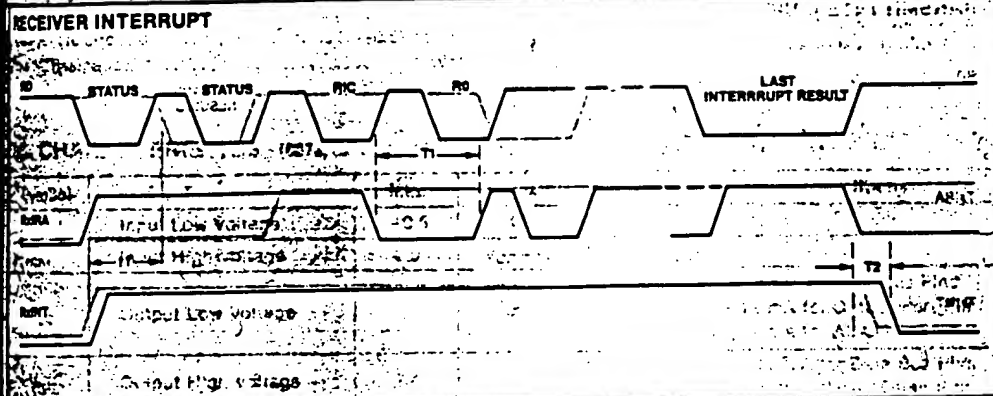


Table 3: Receiver Interrupt Result Timing

Symbol	Timing Parameter (clock cycles)	Buffered		Non-Buffered		Unit
		Min.	Max.	Min.	Max.	
RxIRA bit-set after RIC read		18	29	18	29	tcy
RxINT goes away after last int. Result read		18	27	18	27	tcy

CHARACTERISTICS

TYPING

Symbol	Parameter	Unit
f _{clk}	Clock	Hz
t ₁	Clock	ns
t ₂	Clock	ns
t ₃	Clock	ns
t ₄	Clock	ns
t ₅	Clock	ns
t ₆	Clock	ns
t ₇	Clock	ns
t ₈	Clock	ns
t ₉	Clock	ns
t ₁₀	Clock	ns
t ₁₁	Clock	ns
t ₁₂	Clock	ns
t ₁₃	Clock	ns
t ₁₄	Clock	ns
t ₁₅	Clock	ns
t ₁₆	Clock	ns
t ₁₇	Clock	ns
t ₁₈	Clock	ns
t ₁₉	Clock	ns
t ₂₀	Clock	ns
t ₂₁	Clock	ns
t ₂₂	Clock	ns
t ₂₃	Clock	ns
t ₂₄	Clock	ns
t ₂₅	Clock	ns
t ₂₆	Clock	ns
t ₂₇	Clock	ns
t ₂₈	Clock	ns
t ₂₉	Clock	ns
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t ₃₅	Clock	ns
t ₃₆	Clock	ns
t ₃₇	Clock	ns
t ₃₈	Clock	ns
t ₃₉	Clock	ns
t ₄₀	Clock	ns
t ₄₁	Clock	ns
t ₄₂	Clock	ns
t ₄₃	Clock	ns
t ₄₄	Clock	ns
t ₄₅	Clock	ns
t ₄₆	Clock	ns
t ₄₇	Clock	ns
t ₄₈	Clock	ns
t ₄₉	Clock	ns
t ₅₀	Clock	ns
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t ₈₃	Clock	ns
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t ₈₈	Clock	ns
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t ₉₆	Clock	ns
t ₉₇	Clock	ns
t ₉₈	Clock	ns
t ₉₉	Clock	ns
t ₁₀₀	Clock	ns

WAVEFORMS (Continued)

(Continued)

TRANSMIT INTERRUPT

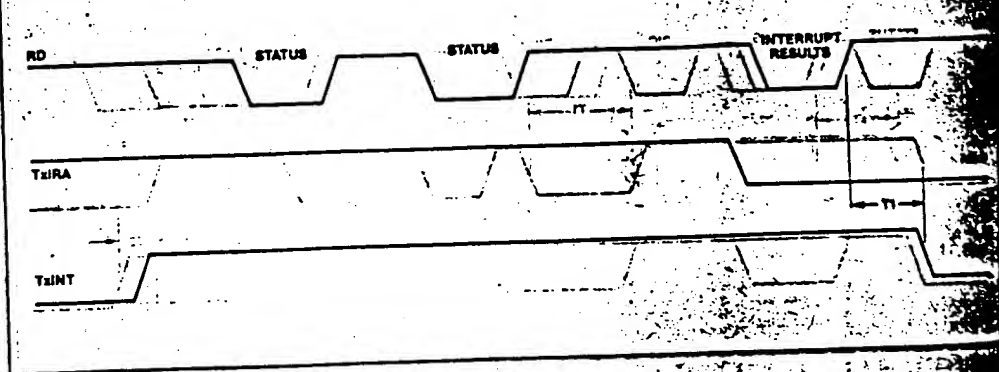


Table 4. Transmit Interrupt Result

Symbol	Timing (Clock Cycle)	Buffered		Non-Buffered	
		Min.	Max.	Min.	Max.
TI	TxINT inactive after Int. Results read	81 13	353 656	01R 1318 1e	1d 454 4
			702	128	
			504	10	

ABSOLUTE MAXIMUM RATINGS*

Ambient Temperature Under Bias	0°C to 70°C
Storage Temperature	-65°C to +150°C
Voltage on Any Pin With Respect to Ground	-0.5V to +7V
Power Dissipation	1 Watt

*NOTICE: Stresses above those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

DC CHARACTERISTICS (8273, 8273-4) ($T_A = 0^\circ\text{C}$ to 70°C , $V_{CC} = +5.0V \pm 5\%$)

Symbol	Parameter	Min.	Max.	Unit	Test Conditions
V_{IL}	Input Low Voltage	-0.5	0.8	V	
V_{IH}	Input High Voltage	2.0	$V_{CC} + 0.5$	V	
V_{OL}	Output Low Voltage		0.45	V	$I_{OL} = 2.0\text{mA}$ for Data Bus Pins $I_{OL} = 1.0\text{mA}$ for Output Port Pins $I_{OL} = 1.6\text{mA}$ for All Other Pins
V_{OH}	Output High Voltage	2.4		V	$I_{OH} = -200\mu\text{A}$ for Data Bus Pins $I_{OH} = -100\mu\text{A}$ for All Other Pins
I_L	Input Load Current		± 10	μA	$V_{IN} = V_{CC}$ to 0V
I_{LF}	Output Leakage Current		± 10	μA	$V_{OUT} = V_{CC}$ to 45V
I_{CC}	V_{CC} Supply Current		180	mA	

CAPACITANCE (8273, 8273-4) ($T_A = 25^\circ\text{C}$, $V_{CC} = \text{GND} = 0V$)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions
C_{IN}	Input Capacitance	100		10	pF	$f_c = 1\text{MHz}$
C_{IO}	I/O Capacitance			20	pF	Unmeasured Pins Returned to GND

AC CHARACTERISTICS ($T_A = 0^\circ\text{C}$ to 70°C , $V_{CC} = +5.0V \pm 5\%$)

CLOCK TIMING (8273)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions
t_{CY}	Clock	250		1000	ns	
t_{CL}	Clock Low	120			ns	64K Baud Max Operating Rate
t_{CH}	Clock High	120			ns	

CLOCK TIMING (8273-4)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Conditions
t_{CY}	Clock	288		1000	ns	
t_{CL}	Clock Low	135			ns	56K Baud Max Operating Rate
t_{CH}	Clock High	135			ns	

intel

8273, 8273-4

Lgh

A.C. CHARACTERISTICS (8273, 8273-4) (T_A = 0°C to 70°C, V_{CC} = 5.0V ± 5%, MUXAM STUJ032A)

READ CYCLE

Symbol	Parameter	Min.	Max.	Unit	Test Conditions
t _{AC}	Select Setup to RD	0		ns	Note 2
t _{CA}	Select Hold from RD	0		ns	Note 2
t _{RR}	RD Pulse Width	250		ns	Note 2
t _{AD}	Data Delay from Address		300	ns	C _L = 150 pF, Note 2
t _{RD}	Data Delay from RD		200	ns	C _L = 20 pF for Minimum 150 pF for Maximum
t _{DF}	Output Float Delay	20	100	ns	
t _{DC}	DACK Setup to RD	25		ns	
t _{CD}	DACK Hold from RD	25		ns	
t _{KP}	Data Delay from DACK		300	ns	

WRITE CYCLE

Symbol	Parameter	Min.	Max.	Unit	Test Conditions
t _{AC}	Select Setup to WR	0		ns	
t _{CA}	Select Hold from WR	0		ns	
t _{WW}	WR Pulse Width	250		ns	
t _{DW}	Data Setup to WR	150		ns	
t _{WD}	Data Hold from WR	0		ns	
t _{DC}	DACK Setup to WR	25		ns	
t _{CD}	DACK Hold from WR	25		ns	

DMA

Symbol	Parameter	Min.	Max.	Unit	Test Conditions
t _{CO}	Request Hold from WR or RD (for Non-Burst Mode)		200	ns	

OTHER TIMING

Symbol	Parameter	Min.	Max.	Unit	Test Conditions
t _{RSW}	Reset Pulse Width	10		ns	
t _r	Input Signal Rise Time		20	ns	
t _f	Input Signal Fall Time		20	ns	
t _{RS}	Reset to First IOWR	2		ns	
t _{CY32}	32X Clock Cycle Time	13.02 · t _{cy}		ns	
t _{CL32}	32X Clock Low Time	4 · t _{cy}		ns	
t _{CH32}	32X Clock High Time	4 · t _{cy}		ns	
t _{DPLL}	DPLL Output Low	1 · t _{cy} - 50		ns	
t _{DCL}	Data Clock Low	1 · t _{cy} - 50		ns	
t _{DCH}	Data Clock High	2 · t _{cy}		ns	
t _{DCY}	Data Clock	62.5 · t _{cy}		ns	Note 3
t _{TD}	Transmit Data Delay		200	ns	
t _{DS}	Data Setup Time	200		ns	
t _{DH}	Data Hold Time	100		ns	
t _{FLD}	FLAG DET Output Low	8 · t _{cy} ± 50		ns	

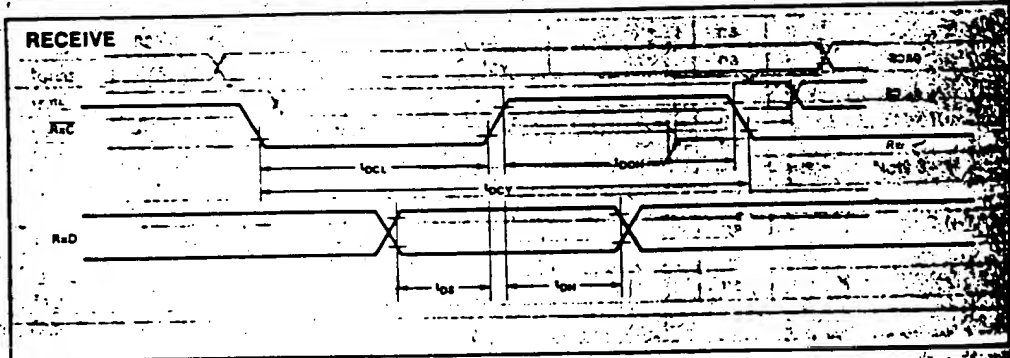
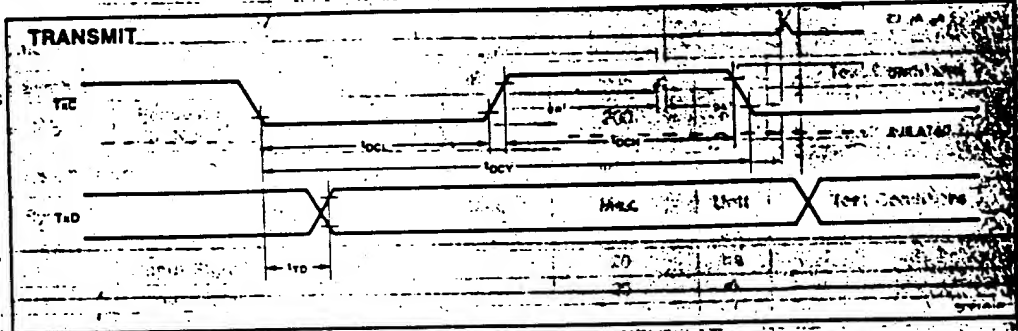
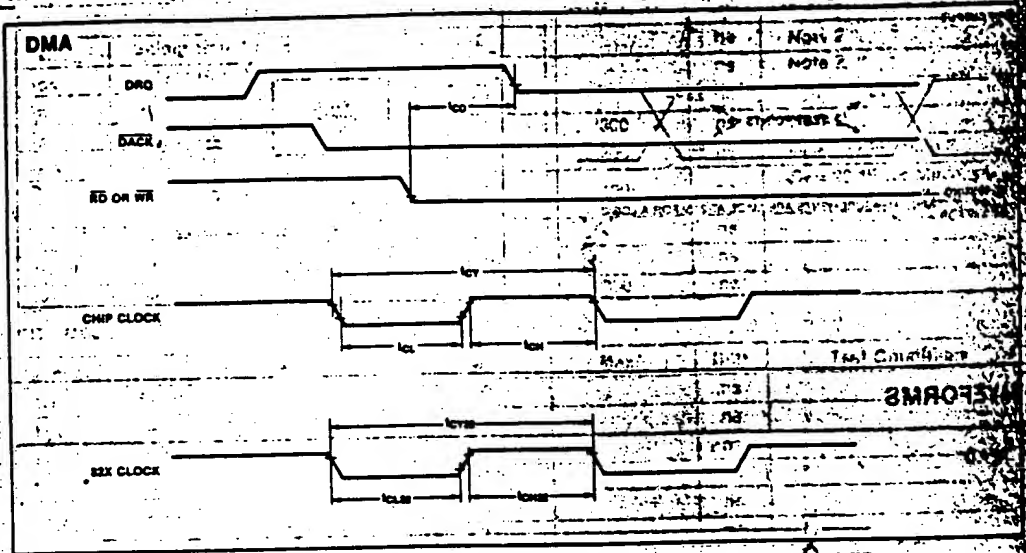
NOTES:

- All timing measurements are made at the reference voltages unless otherwise specified: Input "1" at 2.0V, "0" at 0.8V. Output "1" at 2.0V, "0" at 0.8V.
- t_{AD}, t_{RD}, t_{AC}, and t_{CA} are not concurrent specs.
- If receive commands or Read/Write Port commands are issued while both the transmitter and receiver are active, this specification will be 81.5 t_{cy} min.

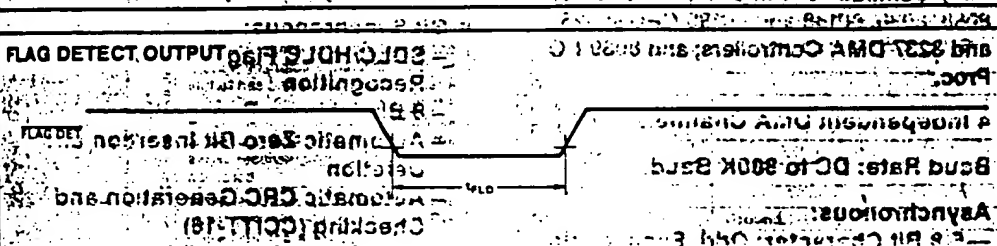
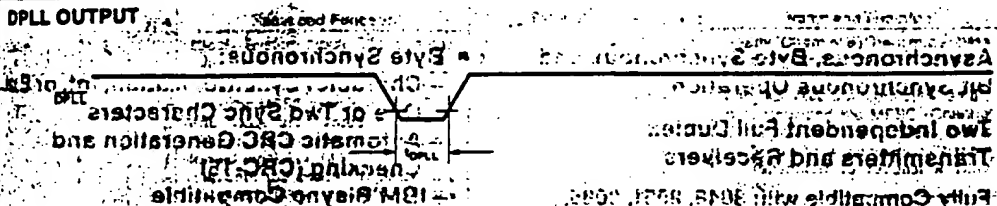
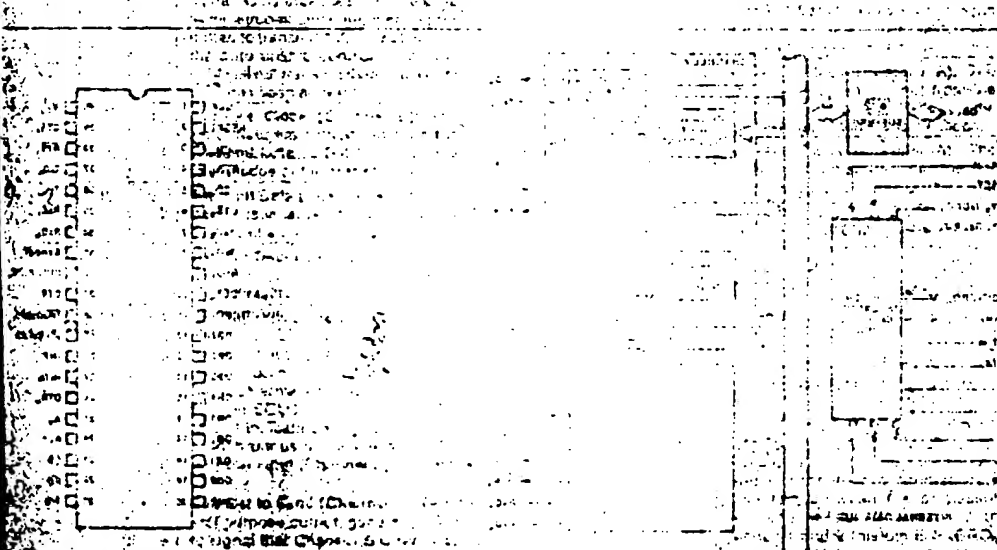
A.C. CHARACTERISTICS

WAVEFORMS (Continued)

TESTING INPUT OUTPUT WAVEFORM



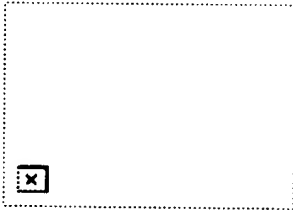
DPLL OUTPUT

[illegible]



Online Product Data

CONTENTS	
Full size photo	
Features	
Detailed description	
Pricing	



VL-7315

Quad RS-422/485 Interface Card

RS-422/485 serial I/O card with prioritized vectored interrupt controller.

Features

- Four Serial Channels
- Independent Full Duplex Channels
- Programmable Transfer Rates to 1.2 MBits/Second
- On-Card Vectored Interrupt Controller
- Asynchronous, BISYNC, SDLC, and HDLC Protocols
- Programmable Local Loopback Mode for Diagnostics
- DMA Handshake Support for High Speed Data Transfers
- Extended Temperature Version Available (VL-73CT15)

STD Z80, STD 80 Compatible**Plug-In Replacement for Pro-Log 7315****Description**

The VL-7315 cards provides four independent full duplex RS-422/485 channels using the industry standard 8530 serial communication controller chip. Both synchronous and asynchronous serial protocols are supported. A programmable local loopback mode is provided for communication diagnostics. DMA control lines are available for high speed data transfers using an external controller. The on-board prioritized vectored interrupt controller is both STD Z80 and STD 80 compatible.

Bus Interface

The VL-7315 supports 8 and 10-bit I/O addressing. Eight consecutive I/O addresses are used.

The IOEXP line can optionally be used as a qualifier to either double the effective address space or to act as a block enable in a 16-bit I/O addressing scheme.

RS-422/485 Interface

The RS-422 interface allows high-speed, long run (to 4,000 feet), noise immune communication for point-to-point applications. RS-485 features the same characteristics with the additional capability of operating in a multidrop master/slave configuration with up to 32 stations.

Two differential signal pairs are provided on each channel to receive and transmit serial data and clock information. If clock signals are not needed, the clock signal pair may be jumpered for use as handshaking signals. In RS-485 mode, the line drivers for the transmit data and clock signals can be disabled under software control.

Asynchronous Mode

All common asynchronous communication formats are easily programmed into the serial controller chips. Programmable functions include number of data bits, number of stop bits, and parity bit formats. Handshake lines are provided to control data flow.

Synchronous Modes

Several standard synchronous protocols are programmable on the VL-7315. Formats supported include BISYNC, SDLC, and

HDLC. Four data encoding methods are possible; NRZ, NRZI, FMI, and FMO. The synchronous clock can be received on a separate RS-422/485 line pair or can be recovered from NRZI or FM data using the built-in digital phase-locked loop.

Baud Rates

Independent programmable baud rate generators are provided for each channel. All standard asynchronous baud rates from 50 to 76.8K baud and synchronous baud rates from 50 to 1.2M baud can be software selected. An external RS-422/485 clock can also be used as the transmit and/or the receive clock.

High Speed Data Transfer

Buffered DMA hand shake lines are provided on two channels to communicate with an external DMA controller through a front plane connector. If a DMA controller is not available, high speed non-pollled data transfers can occur using an optional wait state method.

Interrupt Controller

The VL-7315 are capable of generating vectored interrupts in response to a variety of events. On-card sources such as transmit buffer empty, receive data available, and handshake status line change can generate independent interrupts. The interrupt controller can also be triggered by external signals connected to the 12-pin interrupt header.

I/O Connection

Each channel has a 10-pin latching header connector. Standard mass terminated flat cables or twisted pair flat cables can be used.

Compatibility

The VL-7315 is compatible with the STD Z80 and STD 80 specifications.

For applications requiring an RS-232 interface see VersaLogic's VL-7312 and VL-7314 cards.

Pro-Log Replacement

The VL-7315 is part of VersaLogic's Direct Replacements™ line of STD Bus products. This board is functionally equivalent to Pro-Log's 7315 board. When jumpered to match Pro-Log's functions, the VL-7315 may be plugged directly into your existing system.

Ordering Information

VL-7315 Quad RS-422/485 Interface Card

VL-73CT15 Extended Temperature Version: -40° to +85°C Operation

CDS 2008179

Pricing

[Click here for pricing information.](#)



Specifications

[Specifications are typical at 25°C with 5.0V supply unless otherwise noted]

Size:

Meets all STD Bus mechanical specifications

Storage Temperature:

-40° to +85°C

Free Air Operating Temperature:

VL-7315: 0° to +65° C

VL-73CT15: -40° to +85°C

Power Requirements:

VL-7315: 5V ±5% @ 875 ma typ.

VL-73CT15: 5V ±5% @ 510 ma typ.

Addressing:

I/O, 8 or 10-Bits plus IOEXP

Mapping:

8 byte block on any 8 byte boundary

Bus Compatibility:

STD Z80: Full compliance, all bus speeds

STD 80: Full compliance, all bus speeds

STD 32: I/O slave, SA8-I, SDMA8

Specifications are subject to change without notice.



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CDS 2008180



VersaLogic Corp. (800) 824-3163 or (541) 485-8575
3888 Stewart Road - Eugene, OR 97402
<http://www.VersaLogic.com>

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CDS 2008181

1 Bruce W. Benson, Esq.
2 CASINO DATA SYSTEMS
3 3300 Birtcher Drive
4 Las Vegas, Nevada 89118

5 Lawrence M. Jarvis, Esq.
6 Gregory C. Schodde, Esq.
7 MCANDREWS, HELD & MALLOY, LTD.
8 500 West Madison Street, 34th Floor
9 Chicago, Illinois 60661
10 (312) 707-8889

11 Robert C. Ryan, Esq.
12 Ian F. Burns, Esq.
13 IAN F. BURNS & ASSOCIATES
14 P.O. Box 20038
15 560 East Plumb Lane
16 Reno, Nevada 89515-0038

17 Attorneys for Defendants
18 CASINO DATA SYSTEMS AND
19 SUNSET STATION HOTEL AND CASINO

20 UNITED STATES DISTRICT COURT
21 DISTRICT OF NEVADA

22 MIKOHN GAMING CORP.,)

23 Plaintiff,)

24 v.)

25 ACRES GAMING, INC.,)

26 Defendant,)

27 ACRES GAMING, INC.,)

28 Plaintiff,)

v.)

29 MIKOHN GAMING CORPORATION;
30 NEW YORK NEW YORK HOTEL &
31 CASINO, LLC; CASINO DATA
32 SYSTEMS; and SUNSET STATION
33 HOTEL & CASINO,)

34 Defendants.)

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JUN 3 1999

PERKINS COIE

CV-S-98-01462-PMP (RJJ)

EXPERT WITNESS REPORT OF
LEROY A. PROHOFSKY

1 My name is Leroy Prohovsky. I have been retained as an expert by Defendant Casino Data
2 Systems (CDS) and have been asked to opine as to whether claim 22 of U.S. Patent 5,836,817
3 ("the '817 patent") is anticipated by the prior art, whether claim 22 of the '817 patent would have
4 been obvious to one of ordinary skill in the art at the time of the "invention," and whether claim 22
5 the '817 patent is otherwise invalid for failure to comply with 35 U.S.C. § 112, e.g., whether
6 claim 22 meets the description requirement and whether claim 22 particularly points out and
7 distinctly claims particular subject matter. In addition, I have been asked to opine as to whether the
8 accused CDS product infringes claim 22 of the '817 patent. I have been asked to submit this report
9 setting forth my opinions and the basis and reasons therefore, the information I considered in
10 forming my opinions, and identify any exhibits used to summarize or support my opinions. I
11 submit this report pursuant to Federal Rules of Civil Procedure 26(a)(2).
12
13
14

15 I. EXPERT QUALIFICATIONS

16 My qualifications are as set forth in my previous Expert Witness Report dated February 16,
17 1999, made in connection with the 1383 case, regarding the invalidity of U.S. Patent 5,752,882.
18

19 II. QUESTIONS INVESTIGATED AND INFORMATION CONSIDERED

20 A. Questions Investigated

21 CDS's counsel has asked me to provide my opinion and to testify at trial concerning the
22 '817 patent. Specifically, I have been asked to opine on the following issues:

- 23 1. What does the '817 patent teach?
- 24 2. What is the scope and content of the prior art to the '817 patent?
- 25 3. What are the differences, if any, between the subject matter claimed in the '817
26 patent and the prior art?
- 27 4. What is the level of skill of a person of ordinary skill in the art to which the '817
28 patent pertains at the time of the alleged invention of the '817 patent?

- 1 5. Are the claims of the '817 patent anticipated or obvious to a person of ordinary skill
- 2 in the art at the time of the alleged invention of the '817 patent?
- 3 6. Do the claims of the '817 patent particularly point out and distinctly claim the
- 4 alleged invention?
- 5 7. Are the claims of the '817 patent infringed by the accused CDS product?
- 6 8. Do the claims of the '817 patent comply with the written description requirement of
- 7 35 U.S.C. Section 112?
- 8 9. Were the claims of the '817 patent "patent ready" as of October 12, 1993?
- 9 10. Are any of the following references material to the examination of the claims of the
- 10 '817 patent and its patent application?
- 11 (a) "Gaming Innovations Concept III," #2002918-20029932.
- 12 (b) Registration Statement, Form SB-2 submitted by Acres Gaming Corporation
- 13 to the U.S. Securities and Exchange Commission.
- 14 (c) Acres progressive jackpot system for table games (installed in August 1993 at
- 15 Rio Suites Hotel & Casino in Las Vegas).

16 B. Law Supplied

17 CDS's attorneys supplied me with the information about patent law as set forth in Section II
18 B of my previous Expert Witness report dated February 16, 1999. In addition, a description
19 requirement is imposed by 35 U.S.C. §112, first paragraph.
20

21 The specification shall contain a written description of the invention, and
22 of the manner and process of making and using it . . ."

23 The description requirement comes into play when a claim as originally filed is later amended, or
24 when a new claim is added by an applicant for a patent at some stage after the original filing date.
25 If the amended or added claim does not find support in the specification in the sense that it is for an
26 invention not sufficiently described therein, the description requirement is not met. The
27 specification must convey clearly to those skilled in the art that the applicant had invented, as of the
28

1 filing date of the application, the specific subject matter which is later claimed. The description
2 requirement is not met if a claim contains an element or limitation that is not supported by the
3 specification.
4

5 6 C. Information Considered

7 I have considered the information cited in Section II C of my previous Expert Witness
8 Report plus the following documents.

- 9 1. The '817 patent and its prosecution history and cited prior art.
- 10 2. CDS's Third Motion for Summary Judgment of Invalidity of U.S. Patent No.
11 5,752,882 (On-sale Bar) plus the exhibits in support of that Motion.
- 12 3. CDS's Fourth Motion for Summary Judgment of Invalidity of the '882 Patent for
13 Failure to Comply With The Written Description Requirement of 35 U.S.C. §112
14 and Countermotion to Dismiss for Lack of Subject Matter Jurisdiction.
- 15 4. The references cited in this report.

16 Should additional evidence related to this report come to my attention in the future, I will
17 examine that as well. Should it become necessary, I will supplement this report.
18

19 III. SUMMARY OF OPINIONS

20 Based on my study as described above, my opinions may be summarized as follow.

21 A. It is my opinion that at least Claim 22 of the '817 patent is anticipated by the prior
22 publication titled "Gaming Innovations Concept III", #2002918 - 20029932 ("Concept III
23 brochure").

24 B. It is also my opinion that at least Claim 22 of the '817 patent is anticipated by the
25 Registration Statement, Form SB-2 submitted by Acres Gaming Corporation to the U.S. Securities
26 and Exchange Commission ("Acres SB-2").
27
28

1 C. It is also my opinion that at least Claim 22 of the '817 patent would have been
2 obvious at the time of the alleged '817 invention, when the U.K. Patent Application GB2151054A
3 is considered in light of prior casino automation practices.

4 D. It is also my opinion that at least Claim 22 of the '817 patent, if broadly construed,
5 is anticipated by the Acres progressive table games (installed in August of 1993 at Rio Suites
6 Casino).

7 E. It is also my opinion that all Claims of the '817 patent would have been obvious at
8 the time of the alleged '817 invention to a person of ordinary skill in the art, in view of the
9 following references:
10

- 11 1. Concept III brochure.
- 12 2. Acres' SB-2.
- 13 3. U.K. Patent Application GB2151054A.
- 14 4. Acres Concept III accounting and player tracking system (e.g., the system installed
15 at the Winnebago Casinos and other casinos).
- 16 5. S-Plus machine of IGT.
- 17 6. Acres progressive table games and software (e.g., the system installed in August
18 1993 at the Rio Suites Casino).
- 19 7. General references relating to networked systems.
- 20 8. I will review the Mikohn deposition and documents to be produced by Mikohn in
21 connection with the Mikohn Controller/System as prior art.

22 F. It is also my opinion that at least Claim 22 of the '817 patent was patent ready prior
23 to October 12, 1993. The descriptive materials available to the inventors as of October 12, 1993
24 provided sufficient information from which to file a patent application so as to support at least
25 claim 22 of the '817 patent.

26 G. It is also my opinion that there is no consistent standard of enablement for which
27 claims 22 of the '817 patent would be both enabled by the '817 patent specification and non-
28

1 obvious in light of the Concept III brochure since this prior Concept III brochure discloses an
2 embodiment of claim 22 in substantially the same level of detail as the embodiment in the '817
3 patent specification.

4 H. It is also my opinion that Claim 22 is not infringed by the accused CDS product.

5 I. It is also my opinion that the '817 patent specification does not comply with the
6 written description requirement of 35 U.S.C. Section 112.

7 These opinions cover claim 22 which Acres has asserted. I may also offer opinions on
8 anticipation and obviousness of other specific, unasserted claims after discovery is completed in
9 this action.

10 IV. BASES FOR OPINIONS

11 A. Overview

12 Since the '817 patent and the '882 patent share a common specification, the overview
13 Section IV A of my previous Expert Witness report applies here.

14 B. The Person of Ordinary Skill in the Art

15 Section IV B of my previous Expert Witness report also applies here. Since preparing my
16 previous report I have identified the following additional references which are further illustrative of
17 the knowledge I impute to a person of ordinary skill in the art at the time the '817 patent was filed:
18

- 19 1. The text "A systems Approach to Programmable Controllers", Fred Swainston,
20 1992, is one of many publications which show that the hardware required to perform the
21 methods of the asserted claims was typical of networked automation systems. Further, the
22 operation of certain systems described by Swainston have a high correspondence to the steps
23 of the claimed methods.
24
25
26
27
28

1 2. The 1999 catalog "Guide to Control Products" published by Z-World is generally
2 descriptive of the programmable controllers described by Swainston. Although this
3 publication is not itself prior art, it is nevertheless generally representative of the state of the
4 art in 1992. I recognize the BL1200 described on page 47 to be the same as the product
5 offered for sale as the "Little PLC" in the December 1992 issue of Byte magazine. All of
6 their 1999 products share the salient features of the Little PLC. This publication provides
7 further evidence that well-known automation principles are common to a wide range of
8 applications, including casino automation:
9

10 Approximately 250,000 Z-World controllers are installed worldwide in a diverse range of
11 applications:
12

- 13 - Material handling systems
- 14 - GPS vehicular fleet tracking
- 15 - Automated fabrication machinery
- 16 - Municipal water system control
- 17 - Large building HVAC control
- 18 - Gaming machine monitoring
- 19 - Railroad monitoring systems
- 20 - Oil, gas, and water RTUs
- 21 - Security and alarm control

22 **C. Enablement**

23 Section IV C of my previous Expert Witness report also applies here.
24

25 **D. Claim 22 of the '817 patent is anticipated by the prior publication**
26 **titled "Gaming Innovations Concept III, #2002918 - 20029932"**

27 Claim 22 of the '817 patent is very similar to claims 10 and 19 of the '882 patent. The
28 basis for my opinion that claim 22 is invalid includes the element-by-element analysis set forth in

1 section IV D of my previous Expert Witness report. In this analysis I will compare the scope of
2 claim 22 with the scope of claim 10 and explain why my previous analysis also applies to the newly
3 asserted claim 22.

4 1. Preamble

5 Claim 10:

6 A method of operating gaming devices interconnected by a host computer
7 having a user-operated input device comprising:

8 Claim 22:

9 A method of operating gaming devices interconnected by a computer network
10 to a host computer having a user-operated input device comprising:

11 The preambles of claim 10 and claim 22 have the identical scope notwithstanding the
12 different language since in the digital computer art the term network includes any means by
13 which a host computer and remote devices such as gaming devices are interconnected.
14 Section D1 of my previous analysis also applies here.
15
16
17
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1 2. Preselecting

2 Claim 10:

3 preselecting less than all of the gaming devices interconnected by the host
4 computer responsive to a user-effected action at the input device which
5 identifies the preselected gaming devices with the respective associated
6 address codes;

7 Claim 22:

8 preselecting less than all of the gaming devices interconnected by the
9 computer network responsive to a user-effected action at the input device;

10 These steps also have the identical scope notwithstanding the different language since
11 any network communication, including the communication necessary to operate a network
12 of gaming devices, must rely upon a unique address code. Section D3 of my previous
13 analysis also applies here.

14
15 3. Network Tracking

16 Claim 10:

17 using the network to track activity of the preselected gaming devices;

18
19 Claim 22:

20 using the network to track the amount of money played on the preselected
21 gaming devices;

22 Claim 22 is narrower than claim 10 in that it requires that the tracked activity be the
23 amount of money played. However, the '817 specification concedes that it was known to
24 extract accounting information from gaming devices. Further the Concept III disclosure
25 states that it collects all information required for proper accounting reports. Such
26 information must include the amount of money played. Section D4 of my previous analysis
27 also applies here.
28

1
2 4. Allocating

3 Claim 22:

4 allocating a predetermined percentage of the money played to a bonus pool;
5 and

6 '817 Specification

7 "Another reconfiguration command allows any number of machines on the network
8 to be combined in a common jackpot having a common jackpot payout schedule,
9 wherein the reconfiguration command reconfigures the selected machines to payout
10 in accordance with the common jackpot payout schedule. In this case, the
11 reconfiguration message would be queued up for each of the selected machines to be
12 combined in a common jackpot. One example of a common jackpot is a progressive
13 jackpot. Unlike the prior art progressive jackpot systems, however, the progressive
14 jackpot according to the invention is not limited to a predetermined number of
15 machines. In the prior art progressive jackpot systems, a bank of machines are
16 connected to a common progressive jackpot controller and only those machines can
17 be included in the progressive jackpot. In contrast, any machine on the network
18 including those connected to other floor controllers can be combined into a common
19 progressive jackpot. Moreover, the number of progressive jackpots is not limited by
20 the number of floor controllers since one floor controller can manage more than one
21 progressive jackpot." Col. 36, lns. 35-54.

22 Concept III

23 Standard progressive jackpots are also possible. Instead of mounting a controller
24 beneath each carousel of machines, the system is programmed from a personal
25 computer. You simply type in which machines are connected to which links and
26 describe the starting jackpots amounts, increment rates, limits if any, etc. Then you
27 can mount jackpot displays anywhere in the casino. All you have to do is set the
28

1 display to match the jackpot number it is to display. Up to 64 separate jackpots are
2 allowed. #2002923.

3
4 The claimed step of allocating merely states the method used by prior progressive games to
5 determining the value of the progressive jackpot. This step is taught by the Concept III disclosure.

6 The Concept III disclosure is enabled because the step of allocating money to a progressive
7 jackpot was well known and well within the skill of the artisan in 1993.

8
9 My conclusion that the Concept III is an enabled, anticipatory reference is further supported
10 by comparison of the technical particulars disclosed by the '817 patent with those taught by
11 Concept III.

12
13 5. Issuing Command

14 Claim 10:

15 issuing a command over the network to one of said preselected gaming
16 devices responsive to a predetermined event; and
17 paying at said one gaming device in accordance with the command.

18 Claim 22:

19 issuing a command over the network to cause a bonus to be paid from the
20 pool by one of said preselected gaming devices upon the occurrence of a
predetermined event.

21 The description of Concept III, DX 3, which I considered in my previous analysis is not
22 explicit regarding the source of the command which causes a bonus to be paid. The statement that
23 "Concept III automates double jackpot payments by causing the machine hopper to pay bonus
24 amounts," could be accomplished by either of two methods, described briefly as follows:

25
26
27 Method A
28

- 1 (a) A predetermined event, such as the time of day, causes the host computer to initiate
2 a bonus promotion.
- 3 (b) During the bonus promotion period the host computer repeatedly tests to determine
4 if a bonus win has occurred.
- 5 (c) Upon determining that a win has occurred, the host computer determines the bonus
6 amount and sends a payout command message over the network to the winning
7 game.
- 8 (d) At the game, the payout command message is interpreted to generate the commands
9 which cause the payout.

10 Method B

- 11 (a) A predetermined event, such as the time of day, causes the host computer to initiate
12 a bonus promotion.
- 13 (b) The host computer sends a reconfiguration command message over the network to
14 modify the mode of operation of the participating games. For example, the
15 reconfiguration command message for a "double jackpot" promotion configures the
16 game to pay twice the amount normally paid.
- 17 (c) During the bonus promotion period the game computer tests to determine if a bonus
18 win has occurred.
- 19 (d) Upon determining that a win has occurred, the game computer generates the
20 commands which cause the payout according to the mode for which it has been most
21 recently configured.

22 Only method A corresponds to the clear language of "issuing a command over the network
23 to cause¹ a bonus to be paid . . ." For method A the payout command message is the cause of the
24 game-generated commands which actually affect the automatic payout. For method B the
25 command sent over the network is not a command which causes a bonus to be paid. It merely
26

27 ¹ Compare to the broader language of claim 10 of the '882 patent which claims "paying . . . in
28 accordance with the command".

1 specifies how a bonus payout amount is to be modified for a subsequent win if, and when, such an
2 event might occur. However, the Plaintiffs, in their assertion of infringement, have adopted a
3 broad construction which additionally includes both method A and method B. Under this broad
4 construction sections D5 and D6 of my previous analysis also applies here. Under a narrow
5 construction this claim element would have been obvious.
6

7
8 **E. Claim 22 of the '817 patent is anticipated by the Registration Statement, Form SB-2**
9 **submitted by Acres Gaming Corporation to the Securities and Exchange Commission.**

10 Section E of my previous analysis also applies here.

11
12 **F. Claim 22 of The '817 patent would have been obvious in**
13 **view of the U.K. Reference.**

14 Section F of my previous analysis also applies here.

15
16 **G. Claim 22 of the '817 patent was "patent ready" as of October 12, 1993.**

17 Section G of my previous analysis also applies here. The "Concept 3 Protocol", DX 286
18 and the "Progressive Jackpot Message Protocol" provides additional evidence that claim 22 was
19 patent ready. These documents define the unique features of a program to perform the steps of the
20 claimed method and are thus a master plan to write the actual program code. The translation of
21 these protocols to a functioning program would have been a routine exercise. The schematic
22 diagram contained in DX274 (Acres Ex. 799 dated 3/9/94) when considered in light of the
23 deposition testimony of John Acres pg. 85, ln. 20 and DX 6, provides additional evidence that
24 the invention of claim 22 was "patent ready" as of October 12, 1993.
25
26

27
28 **H. Acres Progressive table games**

1 I understand that Acres sold and installed its progressive table games by August of 1993 at
2 Rio Suites Casino. Claim 22 recites "gaming devices." Acres progressive table games are
3 "gaming devices." Each table is a gaming device. Each of the elements of claim 22, if broadly
4 construed, is found in the Acres progressive table games.
5

6
7 **I. Obviousness**

8 The U.K. Patent Application shows a complete reconfigurable gaming system having a host
9 computer with networked games. It would have been obvious to combine the teaching of the U.K.
10 patent application with the Barrie patent (U.S. Patent No. 4,837,728) which teaches a progressive
11 slot machine system. Such a combination meets the limitations of at least claim 22 of the patent.
12

13 In addition, a suggestion in the art to make the combination is expressly found in each of the
14 following:

- 15 1. The automation art in general.
- 16 2. Concept III brochure.
- 17 3. SB-2 Form.
- 18 4. Rio Suite Progressive Table game system. (Describing a network of gaming
19 machines that can be modified without changing the hand-wired configuration).
20
- 21 5. S-Plus IGT machines and machine brochure.

22 Numerous other permutations and combinations of references are possible. I plan on
23 selecting specific combinations for use at trial based on the claim scope ultimately decided by the
24 Court, and I plan on showing that all claims of the '817 patent are anticipated and/or obvious.
25

26 Regarding secondary considerations, I am aware of no commercial success, long-felt need,
27 rapid adoption, copying, or other factors that would suggest non-obviousness. I am aware of
28

1 CDS's prior work developing the "Fastest Cash" system which, according to my present
2 understanding contains every element of claim 22, if broadly construed. I am also aware that
3 CDS's engineers began work on at least some features of the accused "Pro-Turbo" system prior to
4 Acres' filing date, and depending on what proof of conception and diligent reduction to practice is
5 offered by Acres, I may supplement my opinion to add opinions regarding prior inventorship under
6 35 U.S.C. §102(g).
7
8

9 **J. Claims 1-28 are not infringed**

10 In my rebuttal report I will respond specifically to any statements made by Acres experts
11 that the claims are infringed by the products of CDS. At a minimum, each of the claims require an
12 automatic payout at, or by, the gaming device responsive to a command. The accused CDS
13 product does not meet this claim requirement.
14

15 **K. Materiality**

16 I understand that CDS is contending that Acres withheld material prior art from the
17 examiner. I have examined the Concept III, SB-2 documents and the Rio Suites Table games, and
18 can find no reference to them in the file history. They are plainly material as I have shown above.
19 In my own experience, the inventor's own literature is precisely the material that is most likely to
20 be pertinent to the examiner, especially if it teaches the claimed invention and/or suggests that the
21 invention was on sale.
22

23
24 **L. Claim 22 of the '817 patent does not comply with the written description requirement
25 of 32 U.S.C. Section 112.**

26 The '817 patent specification does not contain a written description of a user-operated input
27 device as recited in claim 22. The terms "personal computer" or "workstation" do not inherently
28 include a user-operated input device.

1 M. At trial I intend to also apply the references newly cited in this report to support my
2 opinions regarding the '882 patent. I am continuing my review and I understand that depositions
3 are scheduled, including the deposition of Mikohn. I plan to review information regarding a prior
4 art Mikohn controller which may additionally support my opinion of invalidity as expressed above
5 and as expressed in my Expert Report regarding invalidity of the '882 patent.
6

7 Sections VI, VII and IV [sic] on page 38 and 39 of my first report in the 1383 case dated
8 February 16, 1999 is incorporated herein by reference with application to the '817 patent.
9

10
11
12 Dated: Jun 29, 1999 Leroy A. Prohovsky
13 LEROY A. PROHOFSKY
14
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28

Certificate of Service

I hereby certify that a copy of the foregoing **EXPERT WITNESS REPORT OF LEROY A. PROHOFSKY** was served on the following persons:

Via First-Class Mail

Mark Rosencrantz, Esq.
Jolley Urga Wirth & Woodbury
3800 Howard Hughes Parkway, 16th Floor
Wells Fargo Tower
Las Vegas, Nevada 89109

Steve Morris, Esq.
Schreck Morris
1200 Bank of America Plaza
300 South Fourth Street
Las Vegas, Nevada 89101

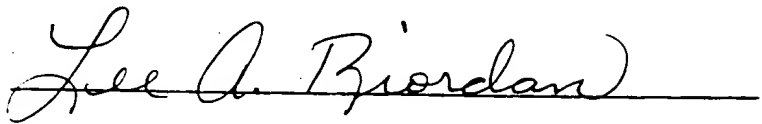
Allan T. McCollom, Esq.
Marger, Johnson, McCollom & Stolowitz, P.C.
1030 S.W. Morrison Street
Portland, Oregon 97205

Via Federal Express

Mark Jackson, Esq.
Perkins Coie LLP
1201 Third Avenue, 40th Floor
Seattle, Washington 98101-3099

Steven E. Shapiro, Esq.
Mitchell Silberberg & Knupp, LLP
11377 West Olympic Boulevard
Los Angeles, California 90064-1683

Dated: June 29, 1999



1 Bruce W. Benson, Esq.
2 CASINO DATA SYSTEMS
3 3300 Birtcher Drive
4 Las Vegas, Nevada 89118

5 Lawrence M. Jarvis, Esq.
6 Gregory C. Schodde, Esq.
7 MCANDREWS, HELD & MALLOY, LTD.
8 500 West Madison Street, 34th Floor
9 Chicago, Illinois 60661
10 (312) 707-8889

11 Robert C. Ryan, Esq.
12 Ian F. Burns, Esq.
13 IAN F. BURNS & ASSOCIATES
14 P.O. Box 20038
15 560 East Plumb Lane
16 Reno, Nevada 89515-0038

17 Attorneys for Defendants
18 CASINO DATA SYSTEMS AND
19 SUNSET STATION HOTEL AND CASINO

20 UNITED STATES DISTRICT COURT
21 DISTRICT OF NEVADA

22 MIKOHN GAMING CORP.,)
23)
24)

25 Plaintiff,)
26)
27)

28 v.)

ACRES GAMING, INC.,)
)
)

Defendant,)
)
)

ACRES GAMING, INC.)
)
)

Plaintiff,)
)
)

v.)
)
)

MIKOHN GAMING)
CORPORATION; NEW YORK NEW)
YORK HOTEL & CASINO, LLC;)
CASINO DATA SYSTEMS; and)
SUNSET STATION HOTEL &)
CASINO,)

Defendants.)
)
)

RECEIVED

JUN 3 1999

PERKINS COIE

CV-S-97-1383-HDM (LRL)
(Base File)

SUPPLEMENT TO EXPERT
WITNESS REPORTS OF LEROY A.
PROHOFSKY

1 I am submitting this supplement to my Expert Witness Reports regarding the '882
2 patent.

3 1. At page 13, line 19 of my first report insert the following text and table:
4

5 The following table contains citations to the text of the Head patent specification
6 which I consider to be most pertinent. For each citation I have identified the claimed step or
7 step which I consider to be alike in principle.

Citation col., line	Like Elements of Claims 10 and 19
12,41-65	Preselecting/Using/Issuing/Paying/Allocating
13,50-57	Preamble
14,66- 15,18	Paying
17,39- 18,39	Preamble
18,58- 19,12	Preamble
24,34-39	Preamble/Associating/Using/Issuing
25,26-68	Preselecting/Using/Issuing/Paying/Allocating
28,61- 29,31	Preselecting/Using/Issuing/Paying/Allocating
30,1-20	Preamble/Preselecting
31,18-43	Preamble/Associating/Preselecting/Using/Issuing
32,1-27	Preamble/Associating/Preselecting/Using/Issuing
32,30-39	Preamble
32,40- 33,24	Preamble/Associating/Preselecting/Using/Issuing
37,50-55	Using
39,35-40	Using
41,42-49	Using
44,38- 45,6	Issuing
46,27-66	Using
52,61-67	Preselecting/Issuing
53,14-18	Using/Issuing
53,29-31	Associating

Citation col., line	Like Elements of Claims 10 and 19
60,35-63	Preamble/Associating/Preselecting/Using/Issuing/Paying
95,1- 96,22	Paying

2. At page 26, line 24, change "The method of claim 1" to "The method of claim 10."

3. At page 37, line 19, change "a payout at the hopper" to "an automatic payout at, or by, the gaming device".

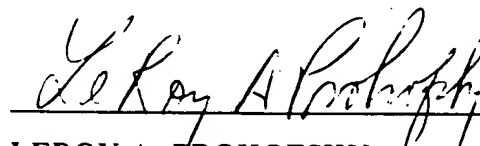
Please supplement my second report as follows:

At page 6, line 19, delete the sentence "Nor is the progressive jackpot amount a command . . . claim 1."

As now supplemented, my reports fully reflect my consideration of the Certificate of Correction for the '882 patent.

Dated:

June 24, 1999


 LEROY A. FROHOFSKY

Certificate of Service

I hereby certify that a copy of the foregoing **SUPPLEMENT TO EXPERT WITNESS REPORTS OF LEROY A. PROHOFSKY** was served on the following persons:

Via First-Class Mail

Mark Rosencrantz, Esq.
Jolley Urga Wirth & Woodbury
3800 Howard Hughes Parkway, 16th Floor
Wells Fargo Tower
Las Vegas, Nevada 89109

Steve Morris, Esq.
Schreck Morris
1200 Bank of America Plaza
300 South Fourth Street
Las Vegas, Nevada 89101

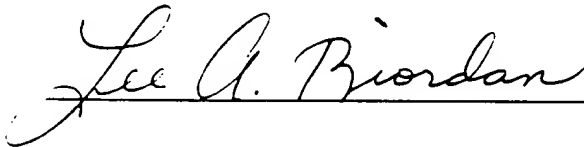
Allan T. McCollom, Esq.
Marger, Johnson, McCollom & Stolowitz, P.C.
1030 S.W. Morrison Street
Portland, Oregon 97205

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Mark Jackson, Esq.
Perkins Coie LLP
1201 Third Avenue, 40th Floor
Seattle, Washington 98101-3099

Steven E. Shapiro, Esq.
Mitchell Silberberg & Knupp, LLP
11377 West Olympic Boulevard
Los Angeles, California 90064-1683

Dated: June 29, 1999



1 Bruce W. Benson, Esq.
CASINO DATA SYSTEMS
2 3300 Birtcher Drive
Las Vegas, Nevada 89118

3 Lawrence M. Jarvis, Esq.
4 Gregory C. Schodde, Esq.
MCANDREWS, HELD & MALLOY, LTD.
5 500 West Madison Street, 34th Floor
Chicago, Illinois 60661
6 (312) 707-8889

7 Robert C. Ryan, Esq.
Ian F. Burns, Esq.
8 IAN F. BURNS & ASSOCIATES
P.O. Box 20038
9 560 East Plumb Lane
Reno, Nevada 89502

10 Attorneys for Defendant
11 CASINO DATA SYSTEMS

12
13 UNITED STATES DISTRICT COURT
DISTRICT OF NEVADA

14 ACRES GAMING INC.)
15)
16)

16 Plaintiff,)

17 v.)

18 MIKOHN GAMING CORPORATION &
CASINO DATA SYSTEMS,)
19)

20 Defendants.)
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CV-S-01462-PMP(RJJ)

SECOND SUPPLEMENT TO
EXPERT WITNESS REPORTS OF
LEROY A. PROHOFSKY

1 In response to Plaintiff's request that I identify all documents and things that I considered in
2 forming my opinions I am providing the following supplemental information:

3 1. In forming my opinions regarding the Rio Suites progressive table games I relied upon
4 the Vega deposition, particularly exhibits 190 - 197.

5 2. For my understanding of the capability of the IGT s-Plus machines, particularly their
6 capability to automatically pay from the hopper in response to an external command, I relied upon the
7 following references:

8 Excerpts from the publication "Lemons, Cherries & Bells-Fruit-Gum, Bates #CDS
9 0008042-59.

10 The deposition of Jay Stone, particularly at pg 21 lns 7-20, pg 123, ln 11- pg 124 ln 7,
11 pg 157, lns 9-22.

12 Exhibit 214, Bates #CDS 0001664

13 Fax message titled "IGT-CDS communication protocol" Bates #CDS 0003194-3128.

14 I may also rely on the following material to support my opinions already expressed:

15 1. The deposition of Ali Safari, and attached exhibits, particularly exhibits
16 477, 485, 487, 488, 496, and 501.

17 2. IGT Victoria GSAMS Documentation Bates # 8348 - 9729, particularly
18 8354-8378, 9144-9151, 9259-9274, 9276-9427, 9433-9448, 9451-9503,
19 9565-9569, 9582-9610.

20 3. The deposition of Tracy Wormdahl.

21 4. Fax Addressed to Kim Lighthart, Bates # 0048-51.

22 5. C. Brian Harris letter, NGCB 0163-68.

23 6. Table game documents, Bates #CDS 2105614-57.

24 7. Executable program CSTUD.EXE.

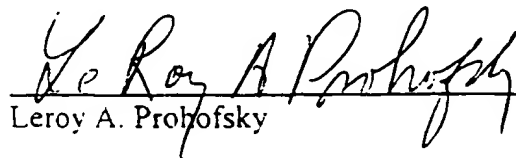
25 8. Supplemental Affidavit of Derell M. Johns, Bates #2022333-35.

9. Documents descriptive of the Mikohn Super Controller, Bates #1200000-1857 particularly, 24-68, 124-227, 506-518, 830, 834, 848-854, 1010-1067.
10. The deposition of Lyle Bell and attached exhibits.
11. The documents and things attached to CDS' Motions for Summary Judgment.
12. The testimony of Mr. Dempsey, especially the testimony regarding prior art control systems.
13. CDS' Fastest Cash system described by CDS' Fastest Cash manuals and Fastest Cash source code.

Upon consideration of the Safari deposition it is now my opinion that Mr. Safari's testimony itself is sufficient to invalidate claim 10 of the '882 patent in that claim 10, if not anticipated or obvious was at least "on sale" prior to October 12, 1993. It is also my opinion that if Claim 10 of the '882 patent is invalid then Claim 19 of the '882 patent and Claim 22 of the '817 patent are also invalid in that neither of these claims add patentably distinct limitations to the limitations expressed in claim 10.

Respectfully submitted,

Dated: September 29, 1999


Leroy A. Prohofsky

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Raura M. Foley

Rio Processing
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DISPLAY

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TABLE N

TABLE 2

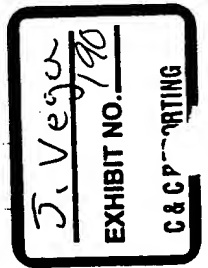
PC

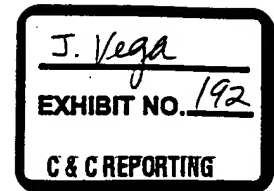
TABLE 1

COIN ACCEPTORS

TABLE
CONTROLLER

4 wire CABLE





FAX TRANSMISSION

PAGES TO FOLLOW: 0

FAX NUMBER: 317 966 0754

August 18, 1993

TO: Mr. John F. Acres

FR: Jose

John:

Lyn Baxter from the RIO called this morning and asked that I fax him a written quotation for purchasing 16 more progressive table games. He needs this information for his files on their east side expansion. I thought that I would fax him the following:

Gaming Innovations is pleased to provide the following quotation for sixteen progressive table games.

16 Progressive Table Game Systems: \$7,500.00 each

TOTAL: \$120,000.00

Let me know if this is okay or if you would like something else. I am sure he will ask about a delivery schedule, any ideas?

Lyn also mentioned that he was not sure if he is authorized to pay our balance during a game trial period per a Gaming Control Board regulation. He has no problem issuing us a check right now but he asked if I knew about any such regulation. I told him I would check with you about any such regulation.

Let me know how you want me to handle these two issues. I hope you get some deserved rest and have some fun.

A handwritten signature in black ink, appearing to be "Jose", with a large loop at the bottom.

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887 NW Grant Avenue • Corvallis, Oregon 97330 • (503) 753-7648 • FAX (503) 753-7524

2005042

517 566 0754

CONFIDENTIAL

2005043

AT Information

503-753-7524

1/19/93

11:53 PM

2/3

**URGENT
FAX**

RUSH TO: Gaming Innovations

FAX: 1 (503) 753-7524

FROM: AT Information

PAGES (INCLUDING THIS COVER): 3

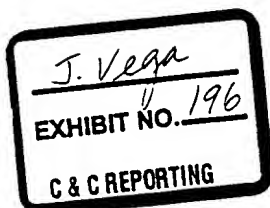
CONFIDENTIAL
Attorneys Eyes Only

Tuesday, January 19, 1993

**HIGHLY
CONFIDENTIAL**

2011741

2 0222



Caribbean Stud Progress Report

Tuesday Jan. 19, 11:30PM

The problem was definitely with the PC's COM2 port. As soon as I switched to COM1, everything worked well.

I was able to do some testing and uncovered a number of problems:

CONTROL BOX

CONFIDENTIAL
Attorneys Eyes Only

1. No jackpot should be allowed if zero coins are played.
2. Turning a jackpot keyswitch when no jackpot button is pressed should have absolutely no effect. Current software seems to set a flag. When a jackpot button is later pressed, the control box automatically clears it. This is BAD!
3. Turning a key when a jackpot button is pressed should have a specific function depending upon the jackpot amount.

For the lowest three jackpots, the jackpot amount should display on the LCD and other displays as soon as "Other" Keyswitch is pressed (Please be sure that the Royal or Straight keyswitch has no effect). All coin acceptor lights should turn off and the control box should enter the "END" condition exactly as if the END key were pressed. A message showing the time stamped jackpot amount should also display.

For the upper two jackpots, a message should go to the computer showing jackpot amount won. The jackpot should not actually clear until the jackpot has been processed on the PC. Then the control box should return to the END condition.

4. This is a WIBNI (Wouldn't It Be Nice If). When I play seven coins on one game, the PC display sometimes shows two transactions: 5 coins and two coins. Would it be possible to hold off the coin reporting until all seven positions have had a chance to drop? This would appear more logical to casino workers.

DISPLAY

These are both WIBNIs.

1. Could one of the DIP switches be used to control odometer speed? One way would be the fast speed we have now when the display is far behind. The second setting would be at the slowest speed always. Perhaps two dip switches could be provided to allow 4 speed settings.
2. On jackpot display amounts that do not use the full screen width, it would look good to center the jackpot amount if possible. A display of \$900.00 looks pretty lopsided right now.

2011742

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CONFIDENTIAL**

2 0223

PC

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Acres Only

1. When a table fails to respond, a message must print saying something like:
Table 1 OFF LINE 1/19/92 22:30.
The printed message does not repeat again, no matter how long the table is off line. It is OK if the message is printed again if power is lost (or program ended) and then restarted.
2. When the table returns, a message like:
Table 1 ON LINE 1/19/92 23:14.
3. When I change system settings, a list is printed on exit along with my name. However, the description says Changes to System Setup. I first thought that the list showed only the CHANGES I had made. Please change the message to say System Settings Changed To: or some such.
4. Winner messages should show winning table number (as 1 to 32).
5. If I select Process Jackpots when there are no active jackpots, a message is printed like "John Acres entered Royal Flush". The name and address stuff doesn't print.

Could it be made so if I select Royal Flush and none is active, I get a message saying "No Active Royal Flush" instead of the password? Similar on Straight flush?

In all, I was pleased with what I've seen so far. Tomorrow, I want to test for jackpot processing accuracy, multiple tables, etc. I'll also try to turn off the PC at inopportune times and look for general ways to screw things up. While that's hard work for me, I know the casino people will show us new problems with ease. That's OK. As long as we get most of them now.

A big concern is static electricity. The loss of an LCD is onerous. Let's get the surge suppressers installed. I need some to install in these boxes already here too. Then we can see what problems remain.

We also need to create an Install diskette that creates a subdirectory, copies all files to it and creates an AutoExec.Bat file to execute the program properly.

By the way, it does no good to zip files before sending them over Close-Up. The program has its own compression routine and actually EXPANDS a compressed file.

Finally, we need to start thinking about writing up assembly procedures and test software for control box, display, acceptors, etc.

While plenty of work remains, you've all done a good job. Jim on parts, Linda and Jim on assembly, Jo on paying the bills and, of course, Liz Jose and Dave on the SMOPs. (Small Matters of Programming)!

Thanks to all of you, this product will be very successful!

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LEMONS, CHERRIES

and



BELL FRUIT-GUM

ILLUSTRATED HISTORY OF AUTOMATIC
PAYOUT SLOT MACHINES
by RICHARD M. BUESCHEL

CDS0008042



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Richard M. Bueschel

Production Manager:
Eric D. Hatchell

Production Associate:
Elaine Bayliff

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Associates, Clifton, VA

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For information, address
Richard M. Bueschel,
c/o Royal Bell Books,
5815 W. 52nd Avenue,
Denver, CO 80212.

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November 1995

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automatic payout slot
machines. 1st Ed.

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CDS0008043

LEMONS, CHERRIES and



by Richard M. BUESCHEL
ILLUSTRATED HISTORY OF AUTOMATIC PAYOUT SLOT MACHINES

Published by:

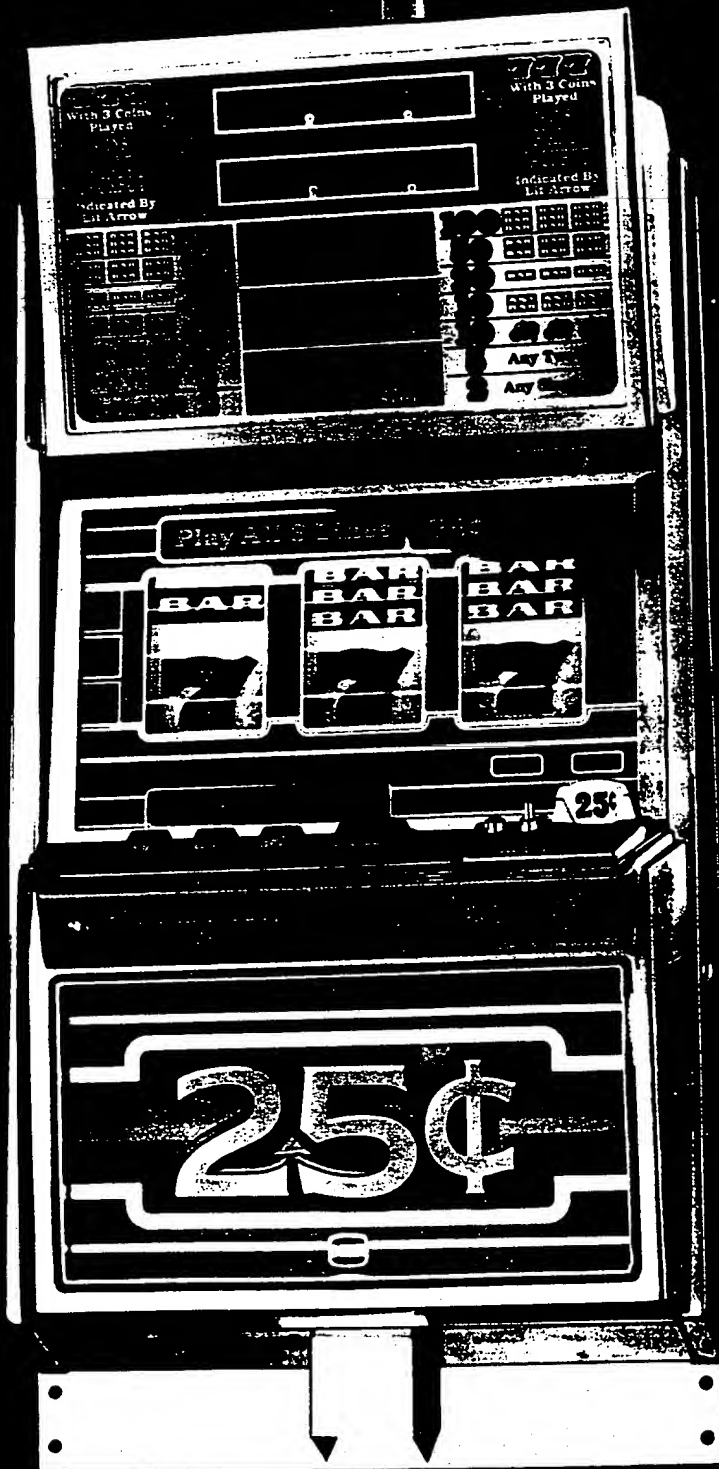


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The M-SLOT series of 1983 was the primary reel product of the IGT firm for 5 years, expanding its models and coverage to counter the models and variants offered by its competitors. This 3 LINE PLAY model also features a progressively built-up "Giant Jackpot."



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CDS0008046



INTRODUCTION

History loves to be organized. Or at least people like to think it does. Think back over how many times about interesting historical phenomena you have read that logically start at point zero and climb up the ladder of time in decades. Years 1 through 10, 11 through 20, and so on. The only problem with that sort of organization is that history is nothing more than today transcribed for tomorrow. And it is rarely neat. Take the two World Wars that left such an impact on the century just ending. World War I had no respect for time, starting awkwardly in 1914 and ending in 1918. That means that in terms of history, as nice as the pleasant years of 1910, 1911, 1912 and 1913 might have been they were lost in the memory of the blood bath of war, and once that war was over the residual year of 1919 had no place to go and had to wait for 1920 for the logical categorization of time to take over once again. World War II was even more troublesome. Starting in 1939 for Europe, the summer of 1941 for what was then the Soviet Union and at the end of 1941 for the United States, it rambled on for anywhere from 3-3/4 to 6 years depending where you lived and when your country entered the battle arena. Ending at the close of summer in 1945, that left the years of 1946 through 1949 to fend for themselves and get lost to history. If you think this is off the mark, consider that these decades, in retrospect, are generally known as the "Fighting Forties" and the "Fabulous Fifties," an entirely unfair description by about half. Not wishing to get ourselves into the same trap of trying to tie neat knots around time and present a history with logical ten year starts and stops on the zeros, we took a look at slot machine history. The results were surprising, and immediately organized this book.

Miraculously, most of the significant inventions or events in slot machine history fall in the center of the traditional decades, making the middle years the obvious starting and stopping points for the next era. We'd do the history by decades alright, but we'd start in the middle when slot machines started, and take it in ten year bites with

the major events in our area of interest taking places right at the start or finish of our chosen time frames. If you think that is illogical, just take a look at the way the story of slot machines unfolds:

1885: The first primitive payout slots are made and introduced to a willing marketplace.

1895: San Franciscan Charles August Fey starts to make automatic payout counter wheel HORSE-SHOE AND STAR slot machines in the Gustav F. W. Schultze pattern. Daniel N. Schall in Chicago re-engineers the "Schultze Machine" for ease of production. The Chicago firm of Paul E. Berger Manufacturing Company makes their first electric floor machine. The landmark firm of Paupa & Hochriem is founded in Chicago. A revolution in slot machine marketing begins with the formation of Ogden & Company, the first mail order house selling direct to locations.

1905: Charlie Fey develops the 3-reel LIBERTY BELL, the Bell machine that will revolutionize slot machine play and enjoyment.

1915: The Mills Novelty Company OPERATOR BELL slot machine leaves its toe-footed cast iron case and switches to a lighter wooden cabinet with a larger cash box, creating the modern slot machine. Other producers soon followed suite.

1925: Here comes the jackpot! Aluminum takes over as the cabinet material of choice.

1935: Edwin A. Pace introduces the most revolutionary (and expensive!) slot machine to date: PACES RACES. The Watling ROL-A-TOR is introduced in February 1935, followed by the Jennings CHIEF in September.

1945: After four years of war, the slot machine industry returns with a raft of new models, only to face the anti-gambling prohibition of the post-war years. New introductions included the Pace

DELUXE, Mills BLACK CHERRY and Jennings CLUB CHIEF, all of which remained the basic classic mechanicals of their producing firms (with evolutionary and appearance changes, of course) until they were replaced by the Bally electro-mechanicals in the 1960s.

1955: Jennings slot machines finally overtake Mills machines in production and popularity. The hard wired Buckley CRISS CROSS POINTMAKER is introduced, paving the way for the forthcoming electronic machines.

1965: After a slow introduction the year before, the Bally MONEY HONEY and its rapidly growing family of electromechanical slot machines take over the market.

1975: Bally owns the business, and solid state machines slowly begin to replace the electro-mechanicals. Competition grows rapidly, both within the United States and throughout the world.

1985: IGT is formed out of a series of Si Redd companies, and proceeds to take over the lead position in slot machine production.

1995: WMS Industries, Inc. and Alliance Gaming Corp. both make substantial offers to acquire Bally Gaming, the second largest American slot machine maker. WMS prevails, realigning the slot machine industry in the U.S.

It was almost predetermined that we should start with the "5" years, and end our chunks of time in the middle of each decade in order to present a more rational history of slot machines than would have been the case if no organization had been present, or the artificial constraints of classical one-to-ten year decades had been followed. Our mid-decade orientation provides another benefit. It ends on time, closing out our history the very year this book is published. What could be neater!

So much for the organization of this book. Now let's consider content. Above all else, an attempt has been made to try to avoid favoritism. There are special slot machines that many people enjoy more than other machines for one reason or another, and as a result they earn an inordinate

share of editorial attention in most books. But that's not the way things were at the time. When new machines were presented to the marketplace all things were equal with the exception of the advertising and promotional push behind the machines. Slots that were later dubbed as dogs often started out as seeming to be the operator's answer to a location's prayers, while others that were literally snuck into the marketplace with little or no advertising or promotion became the shining stars of the future. Examples of these two diverse possibilities are the Jennings ELECTROVENDER of 1930 and the Fey LIBERTY BELL of 1906. Half a dozen different advertising flyers and brochures for the ELECTROVENDER have survived the years while the machine itself languishes in relative obscurity, while nary a piece of Fey LIBERTY BELL advertising or promotion has ever been found (and was most likely not produced), yet this is the most desirable collectible automatic payout slot machine in existence. Equally as misleading are the preferences of slot machine enthusiasts years after the operating lives of the machines they collect. For instance, at the time of their operation the Watling ROL-A-TOR and subsequent ROL-A-TOP slots were regarded as inexpensive second rate machines while many of the the electrical spinner consoles of the late 1930s were seen as the heavyweights of the business. Yet today a good ROL-A-TOP is worth three or four operating consoles, or ten or more if the console glasses are cracked or their faded and untraceable hard wires are clipped.

For that reason, the machines presented here are laid out just as they came out, with no weighted factors for faddishness or collectible desirability in mind. The literature reproduced has been presented with history in mind, not graphics, and was certainly not selected by machine popularity or current collectible value. This is archival history, pure and clear, and constitutes an analysis of vintage advertising as well as slot machines. Literature examples of just about every form of slot machine promotion from every era of machine history are represented, going back to the first advertising to appear in print up to the modern slots that equip the American casino and riverboat and international gambling palaces of today.

displayed wouldn't match the actual result of play and a payout would not be made. It was the idea pioneered by Gamex Industries in 1975 with their revolutionary stepper slots. IGT engineers working under the direction of Logan Pease, who was in on the development of the Gamex machine, went to work on the problem soon after the introduction of their first M-SLOT reel-type machines, with prototypes of the new system S-SLOT machines put out on test in late 1985 and early 1986. The IGT system uses a random number generator built into the machine's computer chip which picks the symbol stop for the first reel, then the second, third and so forth, with each reel stop pick made separately and one at a time in turn while positioning the stepper driven reels. Realizing the tremendous advantage the stepper system machines had over the electronic slots in widespread use, IGT expanded their presentation to a full line of the revolutionary S-SLOT in 1987.

So did the aggressive and newly renamed Universal Distributing of Nevada, Inc., the new American branch of Universal Sales Company, Ltd. of Tokyo, who brought out a full line of their own stepper driven reel display slots in 1986. By now Universal also had offices in Las Vegas and had carved out a portion of the Nevada market for their own. They were soon joined by the Takasago Distributing Company, another Japanese producer of motor driven reel slots, who also opened offices in Las Vegas, with more Japanese producers yet to come.

The all new Bally 255-stop video slot machine, now available with gold cabinet, is a solid gold hit. This machine is attracting extensive player action ... more than ever before!

The V2278 is the latest addition to our outstanding line of video slot machines. We have retained the handle action that the players love on our reel spinning slots, with all new audio and visual reel spinning effect. The latest application of amusing and unique high resolution graphics and a choice of many clever musical payout melodies, as well as different reel spinning sounds, ... increase player action.

The Bally video slot machines are available in models and programs similar to that which is available in the E2000™ series of player proven slots.



Both Bally and IGT soon found that their major competitors on their own home turf were Japanese. It was the same throughout the world. The Japanese continue to earn market share in the United States, with Sigma Enterprises, Inc. of Tokyo, joining with the other firms that have brought their advanced and reliable machines to American shores. Perhaps it is only right that this Pacific Rim powerhouse walks away with a share of the American market, for it was Japan that finally recognized Jack Kilby, the creator of the semiconductor while working for Texas Instruments in 1958, and named him the Kyoto Prize laureate in advanced technology (Japan's equivalent of the Nobel Prize) in November, 1993, awarding him \$425,000. Kilby gave the world the semiconductor microchip that revolutionized electronics, and led to the modern slot machine.

Bally didn't catch up to the stepper slot revolution until 1987, when they introduced their large

3-reel, 3-line play with 255 stops per reel make the Bally SOLID GOLD video slot live up to its image as a gold mine machine. Three 7s on the third line wins the progressive award, or a fixed award varying from 50,000 to a million coins.

The big change in slot machines came when payouts were no longer based on cut metal mechanical stops related to the symbol show, but were randomly generated by a chip with the physical reel symbols motor driven in place to reflect the selection of the "brain." It was the most significant change in reel-type machines since the Fey LIBERTY BELL. The IGT S-SLOT of 1987 was a pioneer example of the art.



symbol System 5000 series of motor driven reel-type machines, in 44-stop "Standard, 50-stop "Variable," and 64-stop "Virtual" models" covering many of the popular variants they had created in the past. By the 1990s the new Bally stepper slots had replaced their previous lines, and they were selling their 5000-Plus Series developed under the direction of Ray Heidel, VP engineering and chief designer. IGT upgraded their S-SLOT line to the second generation S-PLUS series which included "...an advanced micro-computer package to accommodate a variety of contemporary applications. Multi-level progressives. Creative link configurations. Enhanced audit trail functions. And exciting game software with proven player attraction."¹ IGT made their play as "...the world leader in the design and manufacture of slot machines, video gaming equipment and proprietary software for computerized wide-area game

monitoring systems."² To prove the point subsidiaries were opened throughout the casino playing world, including IGT (Australia) Pty., Limited, a manufacturing plant in Sydney, Australia, in the home market of one of their major competitors. After an agonizing effort to enter the booming Japanese gaming machine market, IGT finally received approval to deliver their first machines to Japan in April 1993, a token-payout *Pachisuro* (*Pachislo*) model called VEGAS GIRL.

Motor driven became the byword of the late 80s and 90s, with the format evolving into the high security slot machine of the modern era with its show based on a random number generator selecting a single number from a pool of numbers covering every possible combination on the machine, with the symbol show of the next play based on whatever



Once Si Redd stepped aside as the active manager of IGT, professional management took over. John J. "Bud" Russell joined IGT in 1986, and was named president and chief operating officer in February 1988.

number has been pinpointed, making every combination possible by pure chance.

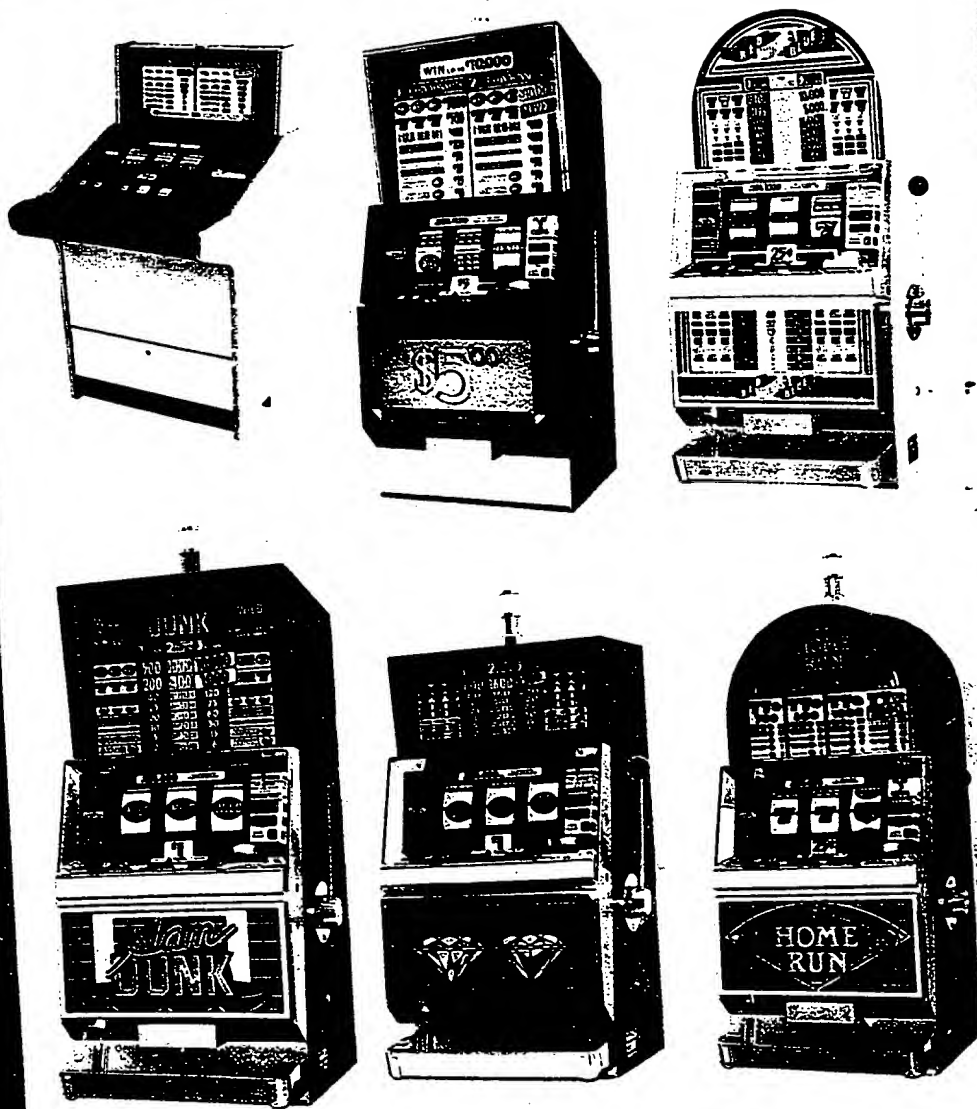
There were significant changes in the industry beyond the hardware and software. Just as the new S-SLOT machines were coming out, Si Redd stepped away from active management in IGT, sold his stock back to the company and an employee group, and remained with the firm as its Chairman of the Board Emeritus. When Bally's Gaming Equipment Division lost out on an Illinois State Lottery machine contract in 1988, the new Bally management thought long and hard about their options and the fact that the bulk of their business was in Nevada. The decision was made to move to Reno in 1989, which ultimately led to the establishment of an independent entity called Bally Gaming,

¹ "IGT S-PLUS Slot Series," sales brochure, IGT, Reno, Nevada, May 1992.

² "IGT Historical Overview: A Commitment to Quality," IGT, Reno, Nevada, October 22, 1992.

The second generation of IGT motor driven slot machines, The S-PLUS carries the S-SLOT into the 90s. IGT provides an EPROM library of multiplier, line and wild symbol games to specifically tailor the machine to its particular casino or riverboat operations.

IGT S-PLUS SLOT SERIES



S-PLUS Slot Series

The second generation of IGT's S-Slot, the S-Plus has all the appealing features available in this popular spinning-reel family. *PLUS* an advanced microcomputer package to accommodate a variety of contemporary applications. Multi-level progressives. Creative link configurations. Enhanced audit trail functions. And exciting game software with proven player attraction.

The S-Plus Slot delivers extraordinary performance. We've pioneered the latest IGT technological achievements into an ultra-secure machine with the classic slot look, a superior modular design and minimal maintenance needs. It's the new expression of our continuous commitment to provide you with the best slot machine in the world...and it's Made in America!

Introducing the S-Plus

The S-Plus Slot Series is an extension of IGT's versatile and high earning slot products. Several technological amenities inside its traditional cabinet make the S-Plus radically refined:

- Expanded high capacity 8K RAM supports a multiple variety of advanced features and options
- Two-board microprocessor system utilizing a mother board and a processor board
- E² module on mother board improves accounting integrity by retaining audit trail when the processor board is removed or CMOS is cleared
- Three communication channels on processor board to simultaneously support progressive capability, data collection system and auxiliary peripherals
- Partitioned S-Plus software system puts payable on one chip and game features on the second chip allowing program updates without payable changes
- Four-level progressive award capability
- Hopper-paid lower level progressive jackpot capability on specific software
- Up to 32 digit imbedded progressive meter capability

- Separate input/outputs for bill acceptor and mechanical bell
- Improved sound quality with door-mounted speaker
- Door-open alarm, attract mode, stepper light sequencing and enhanced sound capability
- Coin handling for up to 50mm diameter tokens
- Imbedded numeric (seven segment) or alpha/numeric (dot matrix) digital display capability
- Compatible with the Electronic Data Technologies (EDT) Gaming Management Systems
- Accommodates internal or external EDT Player Tracking System card reader

The S-Plus represents the ultimate in low-cost flexibility. Due to its ability to operate with either the full complement of standard S-Slot programs (without mechanical bell or bill acceptor) or partitioned S-Plus software, you can seek the most player-friendly games for your market by experimenting with IGT's vast EPROM library—including the most popular multiplier, line and wild symbol games in existence. A typical game change merely requires the simple change of glass, chip and reel strips, which can be performed in minutes.

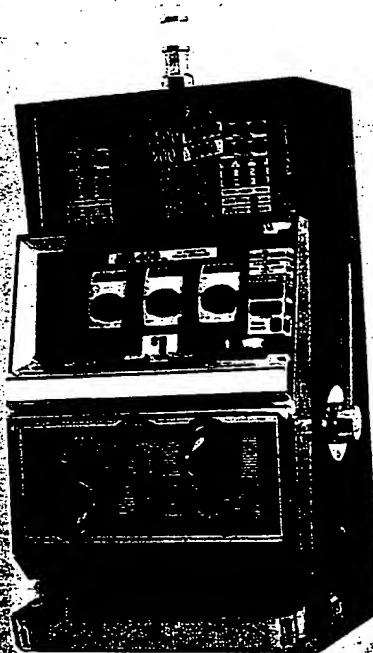
Engineered to provide slot players with quality entertainment while maximizing your profit potential, the S-Plus is today's most thorough definition of a state-of-the-art spinning reel machine.

As the world leader in gaming technology, IGT develops The Games People Play. And Play. And Play.

Our network of sales/service centers and exclusive distributors reaches around the world to make the ownership of our equipment a special experience. Beginning with a superior product, and continuing with superior attention to your needs and our services to you.

Find out more about the S-Plus Slot Series and our broad range of gaming machines by contacting your IGT account representative or distributor today.

IGT S-PLUS slot series game changes usually only require glass, chip and reel strip substitutions and can often be accomplished in a matter of minutes.



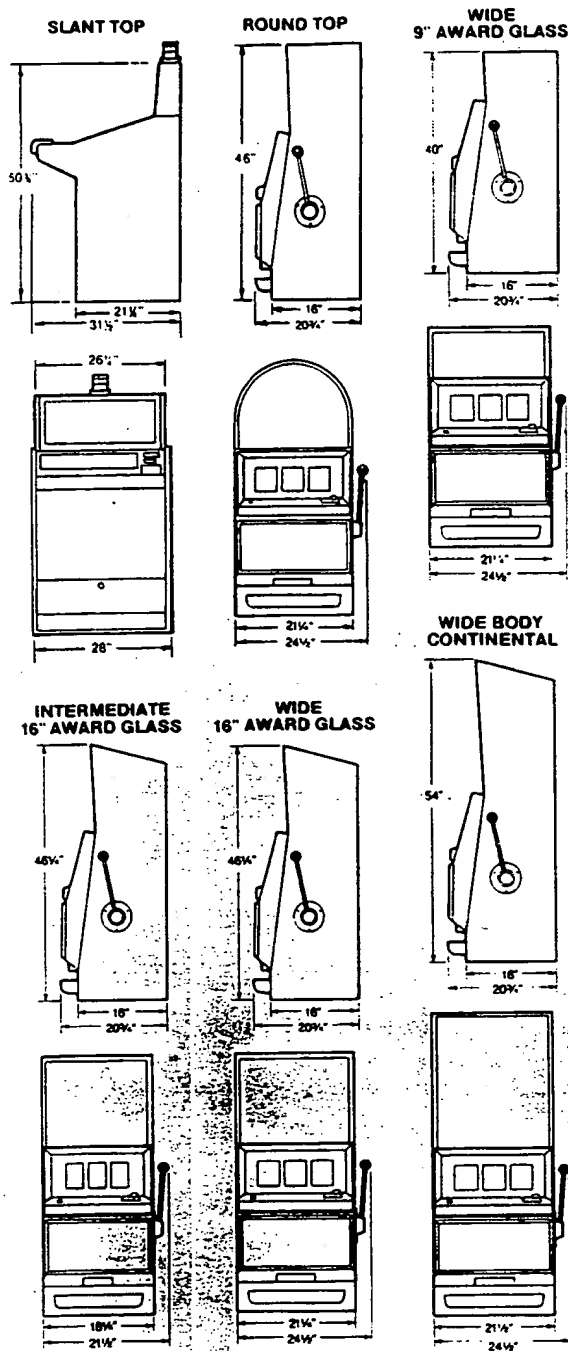
SPECIFICATIONS:

POWER CONSUMPTION

Line Voltage	115VAC	220VAC
Idle (Avg.)	1.3 AMPS	.7 AMPS
Hopper On (Avg.)	4.0 AMPS	2.5 AMPS
Line Frequency: 50/60 Hz		

SHIPPING INFORMATION

Machine	Weight	Shipping Container Size
Wide Body, 16" Top Box	190 lbs (85.5 kg)	54"x29"x25" (137.2cm x 73.7cm x 63.5cm)
Intermediate Body, 9" Top Box	185 lbs (83.25 kg)	47"x25"x25" (119.4cm x 63.5cm x 63.5cm)
Intermediate Body, Low Boy	180 lbs (81.0 kg)	40"x25"x25" (101.6cm x 63.5cm x 63.5cm)
Wide Body, Continental Top Box	195 lbs (87.7 kg)	67"x29"x25" (170.0cm x 73.7cm x 63.5cm)



Inc. located in a new production facility in Las Vegas.

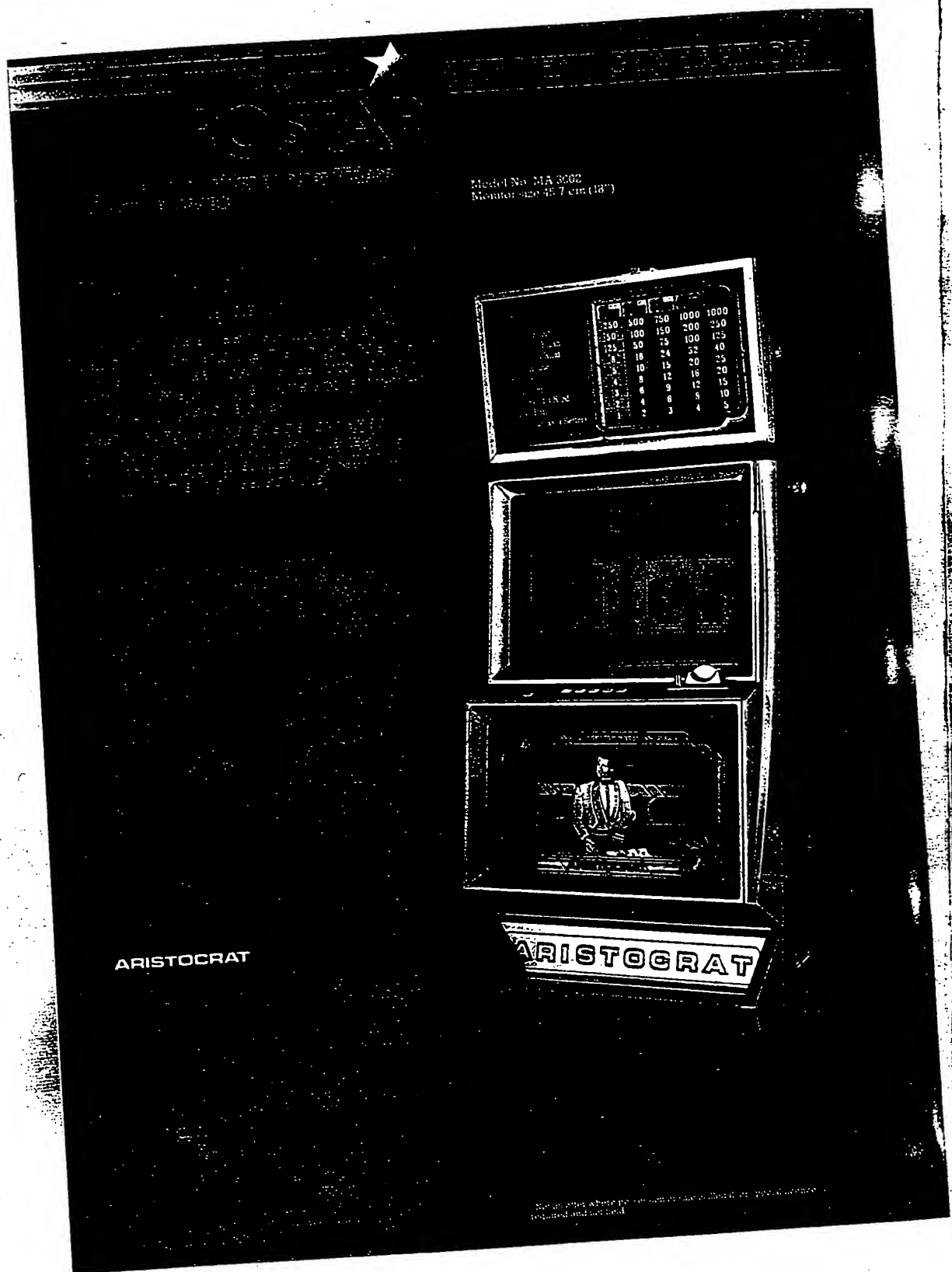
The road was even more rocky for other domestic producers. By 1987 Game Plan, Inc. was on a downhill spiral, finally closing its doors in the spring of 1988, their last product a converted motor drive version of their electronic slot which were sold out in New Jersey as token machines.³ Most of the other 70s and early 80s hopeful producers of slots were gone, while a few long termers still survived. Mills Jennings in Reno introduced new models of their wide reel STANDARD 700 at the end of 1986, and moved into new facilities in Reno two years later, surviving as a video poker game producer into the 90s. Games of Nevada, having weathered the storms of change and takeover under its still president and owner Mickey Wichinsky, rebounded as a significant specialty slot producer for the Nevada market. Filling in from the bottom was a whole new assortment of video, electronic, spinning reel and newer format payout slot machine producers arising out of the ashes of the past all over the country to meet the ever expanding needs of an exploding market as slot machine play once again



"Motor driven became the byword of the late 80s and 90s, with the format evolving into the high security slot machine of the modern era."

³ Telephone interview with Ed Cebula, former chief engineer, Game Plan, Inc., Chicago, Illinois, June 12, 1988.

The Ainsworth ARISTOCRAT MICROSTAR II video poker machines were introduced in 1987. They were among the first top display full size "real" card faces. Monitor is 18-inch, a gain over the standard IGT FORTUNE models.



became a highly visible and popular public amusement.

By the late 80s and early 90s it was plain to see that slot machines were returning to the public sector. The beginnings of change came about when numerous native American indian councils determined that their reservations were separate legal entities, allowing them to open Las Vegas style casinos protected by the Federal Indian Gaming Regulatory Act of October 1988, provided the activity is not against their state law. The result is a concentration of indian casinos in Wisconsin and Minnesota, and in far away Connecticut, with other states, including Michigan and California, following. Cruise ships have long been a haven for slot machine play, with more and more people, including families with children, taking their vacation tours in international waters. Then casino play came inland, but not on land. Once it was determined that riverboats exuded a charm of the past that was hardly threatening, riverboat gambling (and the new tax base it provided) became a reality. The first boats set sail from the Iowa side of the Mississippi River on April 1, 1991. It wasn't until later in the year that Illinois boats got into action, after which they moved upstate river by river, getting closer to Chicago with each step. Soon Chicago was vying for its own water or even land based casinos, and is likely to get them sometime in the later 90s. Downriver, the state of Mississippi legalized riverboat gambling, after which Louisiana approved riverboat gambling in 1991, and casinos in 1992. Indiana followed, with its own boats in operation in 1994. The effort wasn't always successful, with Dubuque, Iowa's early riverboat casino, steaming away for warmer waters after a little over a year because there just wasn't enough action where it was docked. But this was an exception. Other states, and waterways, continue to take the plunge. Some states have opted for allowing slot play under controlled circumstances. Maryland allows them in fraternal clubs, while Colorado and South Dakota allow casino operations in a few designated tourist attraction towns. It is estimated that by the turn of the century many, if not most, states will permit slot machine

play in one form or another. The trend is evident. By the end of 1993, "America was home to 23 floating casinos and 65 casinos on indian reservations."⁴ Yet, while all this is going on, Las Vegas continues to grow, adding enormous tourist attractions and theme hotels in addition to new gambling halls to its offerings. There is no end in sight.

The diversification of slot machine gambling, and recognition of the American market as the jewel in the crown of casino play, attracts an ever widening supplier base. You cannot help but wonder if there is enough room to support the burgeoning business of slots, yet year in and year out new producers come into the field, selling in the United states and elsewhere throughout a world that embraced the basic spinning reel machine that the legendary Charlie Fey created at the beginning of the 20th century. The surprising strength of offshore machine makers seems only to grow, not slow. The Australian invasion of the American and world market has become an accepted fact, with Ainsworth Aristocrat changing its name once again, this time ignoring its dental roots and going for the promotional effect of its primary lines, becoming Aristocrat Leisure Industries, selling its video and reel spinning machines in 50 countries, including a major effort in the cruise ship, Caribbean casinos, American indian reservations and the new riverboat gambling markets, not to mention Nevada, Atlantic City and Colorado. It has been joined by yet another Australian maker, Milwell Pty. Ltd. of Sydney, just starting out with a line of video slots for the local market.

British and European makers and revampers are continually expanding the worldwide markets for their products. Casino Games in Surrey, England; Cirsa in Barcelona, Spain; Fortuna Automaten b.v. in Nieuwegain, Holland, a reconitioner of Bally E-1000 and E-2000 Series machines, to name a few, seem to suggest that the Bally look of the 60s will continue to be the design norm of the spinning reel machines of the 90s, although other producers are starting to contest this conventional wisdom. A surprising addition to this international club is Th. Bergmann Automaten GmbH & Company of



"You cannot help but wonder if there is enough room to support the burgeoning business of slots, yet year in and year out new producers come into the field, selling in the United states and elsewhere throughout a world that embraced the basic spinning reel machine that the legendary Charlie Fey created at the beginning of the 20th century."

⁴ "Year In Review. Missing The (River) Boat," *RePlay Magazine*, January 1994.

A century after Charlie Fey was making coin machines in San Francisco, his name still has the power to command attention and denote technological superiority. The headline on this Bonanza Enterprises flyer for SUPER DICE states "Revolutionary game since Charly Fey's invention," a slight corruption of Fey's name and accomplishment. Note the U. S. patent protection for this Japanese machine at lower right. The actual patent application is dated September 6, 1988.



REVOLUTIONARY GAME SINCE CHARLY FEY'S INVENTION
SUPER DICE

MARK-III GOLDEN SIX
MODEL: GS 20060/SH

***FIVE REAL DICE** — roll and make exciting movements in the playfield and read accurately by the reading system.

***RELIABLE ELECTROMECHANICAL SYSTEMS**, all in modular form to enable on-the-spot swapping.

***AUTO - HOLD FEATURE** — dice that are wanted are automatically held for instant re-rolling the rest.

***DOUBLE - TRIPLE UP GAME** — two dice are rolled.
BIG total count of 8 - 11 pays **DOUBLE** and 12 pays **TRIPLE**.
SMALL total count of 3 - 6 pays **DOUBLE** and 2 pays **TRIPLE**.
7-7 ? Mystery ?

FEVER GAME & BONUS FEATURE — **FEVER** or **BONUS** chance in every game.

BANK NOTE ACCEPTOR — accepts income with bank notes in addition to coins — available for Japan, Singapore, Malaysia, Taiwan, Hong Kong, U.S.A., Canada and major European countries.

DONANZA

For further details, please fax or telex to:
BONANZA ENTERPRISES, LTD.

3-43, 3-Chome, Shin-Yamashita, Naka-ku, PORT P.O.Box 111, Yokohama, Japan.
Tel: (045) 623-5711 Telex: 47901 WIKIWIKI J Fax: (045) 651-6242

U.S.A. PATENT 4,602,311



Signing Colorado's enlightened slot machine collectible act into law in March 1994 is governor Roy Romer, joined by representative Michelle Lawrence, sponsor of the bill. Witnesses are Rosanna and Bill Harris of Royal Bell, Ltd., Denver, proponents of the action. The law allows home use and collectibility of retired technology slot machines produced prior to 1984.

Rellingen (Hamburg), Germany, an old line coin machine company dating back to the early 1900s. The leading German pinball producer of the 1930s, returning to the field in the 50s, adding automatic payout consoles and wall machines, the firm introduced its reel spinning slots to the American market in 1988 under its Bergman USA, Inc. marketing arm, gaining Nevada licensing in 1989.

Countering this growth of offshore competition and the commanding position of IGT is the coming realignment of American slot machine production and marketing capability, and the possible return to full line coin machine capability in the manner of the 30s, something that had been lost years earlier with the demise of Mills Industries and the breakup of Bally Corporation diversification. This time it wasn't Bally that led the way. It was just the opposite, with Bally Gaming International Inc. being courted by WMS Industries Inc., the parent company of Williams Electronics, the latter an expanding coin machine producer that started out as a pinball revamper and original game maker in the mid-

1940s. Over the years Williams, a wholly owned subsidiary of WMS Industries, Inc., became a major producer of pinballs, having a 50 to 60 percent share of the world market by the 1990s. In 1991 Williams acquired the Bally Pinball Division and comfortably assimilated the design, production and marketing teams while retaining the Bally name as a marketing mark. As WMS Industries Inc. reached deeper into the coin-op pool, producing pinball, video arcade games, redemption games and video poker machines, they edged ever closer to the payout slot. The move was made in the spring of 1994 with the formation of the wholly owned subsidiary WMS Gaming Inc. and the introduction of a round top "cathedral" style cabinet line of casino button stepper reel slots and button video slant tops, respectively known as the PLATINUM FX™ and QUANTUM XL™ lines. A year later an opportunity to increase market share presented itself. On April 18, 1995 an agreement was reached whereby Bally Gaming would be acquired by WMS Industries Inc. for shares of

TENT: 4892311

ohama, Japan.
045) 651-6242

Thomas F. Rummel
 3800 Howard Hughes Parkway
 Seventh Floor
 Las Vegas, Nevada 89109
 (702) 792-7000

MARGER. JOHNSON. McCOLLUM & STOLWITZ, P.C.

Alan T. McCollum
 Gerald D. Haynes
 621 SW Morrison Street, Suite 550
 Portland, Oregon 97205

Attorneys for Defendants

RIO PROPERTIES, INC.
 JFA ENTERPRISES, INC. and
 JOHN F. ACRES

UNITED STATES DISTRICT COURT

DISTRICT OF NEVADA

D. & D GAMING PATENTS, INC.

Plaintiff,

v.

Case No. CV-8-93-835.
 LDG-RLH

RIO PROPERTIES, INC., THE RTO
 SUITE HOTEL AND CASINO, JFA
 ENTERPRISES, INC., and JOHN F. ACRES

Defendants.

SUPPLEMENTAL AFFIDAVIT OF DERELL M. JOHNS

I Derell M. Johns, hereby state, swear, and affirm as follows:

1. I previously submitted an affidavit, which I executed on November 19, 1993, in support of the Plaintiff's Explanation of

2022333

CONDENSED TRANSCRIPT

IN THE MATTER OF:

ACRES GAMING, INC.

vs.

MIKOHN GAMING CORPORATION & CASINO DATA SYSTEMS

Deposition of
Martin Dempsey

Taken on Tuesday, July 13, 1999

All-American Court Reporters
633 South 4th Street
Second Floor
Las Vegas, Nevada 89101

(702) 240-4393 FAX: (702) 384-5506

Word Index Included

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<p>1 UNITED STATES DISTRICT COURT</p> <p>2 DISTRICT OF NEVADA</p> <p>3</p> <p>4</p> <p>5 ACRES GAMING, INC.)</p> <p>6 Plaintiff,)</p> <p>7 vs.) Case No.</p> <p>8 MIKOHN GAMING CORPORATION) CV-S-97-01462 HDM(RJ)</p> <p>9 & CASINO DATA SYSTEMS)</p> <p>10 Defendant.)</p> <p>11</p> <p>12</p> <p>13</p> <p>14 DEPOSITION OF MARTIN DEMPSEY</p> <p>15 Taken at the Offices of Schreck Morris</p> <p>16 On Tuesday, July 13, 1999</p> <p>17 At 9:20 a.m.</p> <p>18 At 300 South Fourth Street</p> <p>19 Suite 1200</p> <p>20 Las Vegas, Nevada</p> <p>21 CONFIDENTIAL</p> <p>22</p> <p>23</p> <p>24</p> <p>25 Reported By: Cynthia K. DuRivage, CCR No. 451</p>	<p>1 INDEX</p> <p>2</p> <p>3 WITNESS PAGE</p> <p>4 MARTIN DEMPSEY</p> <p>5 Examination By Mr. Dowell 5</p> <p>6 Examination By Mr. Riedinger 213</p> <p>7</p> <p>8</p> <p>9 DOCUMENTS PREVIOUSLY MARKED</p> <p>10 BUT REFERRED TO HEREIN</p> <p>11 NUMBER PAGE</p> <p>12 351 151</p> <p>13 364 202</p> <p>14 450 206</p> <p>15 453 172</p> <p>16</p> <p>17</p> <p>18 EXHIBITS</p> <p>19</p> <p>20 NUMBER DESCRIPTION PAGE</p> <p>21 305 Notice Of Deposition Of Martin Dempsey 5</p> <p>22 306 Employee Patent and Confidential Information Agreement 36</p> <p>23</p> <p>24 307 Oasis II System Overview 43</p> <p>25 308 Statement Of Martin Dempsey 86</p>
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<p>1 APPEARANCES:</p> <p>2</p> <p>3 For Acres Gaming, Inc.:</p> <p>4 PERKINS COIE</p> <p>5 BY: JERRY A. RIEDINGER, ESQ.</p> <p>6 MICHAEL D. BROADDUS, ESQ.</p> <p>7 1201 Third Avenue</p> <p>8 40th Floor</p> <p>9 Seattle, Washington 98101-3099</p> <p>10 -and-</p> <p>11 GERALD D. HAYNES, ESQ.</p> <p>12 General Counsel, Acres Gaming</p> <p>13 7115 Amigo</p> <p>14 Suite 150</p> <p>15 Las Vegas, Nevada 89119</p> <p>16</p> <p>17 For Casino Data Systems and Sunset Station</p> <p>18 Hotel & Casino:</p> <p>19 McANDREWS, HELD & MALLOY</p> <p>20 BY: ANTHONY E. DOWELL, ESQ.</p> <p>21 GREGORY C. SCHODDE, ESQ.</p> <p>22 500 West Madison Street</p> <p>23 34th Floor</p> <p>24 Chicago, Illinois 60661</p> <p>25</p> <p>For Mikohn Gaming Corporation and New York New York</p> <p>Hotel & Casino:</p> <p>MITCHELL SILBERBERG & KNUPP</p> <p>BY: STEVEN E. SHAPIRO, ESQ.</p> <p>(Not Present)</p> <p>11377 West Olympic Boulevard</p> <p>Los Angeles, California 90064-1683</p> <p>.....</p>	<p>1 EXHIBITS</p> <p>2 NUMBER DESCRIPTION PAGE</p> <p>3 309 60 Day Evaluation for Martin Dempsey 144</p> <p>4 310 Phone list for Acres Gaming 147</p> <p>5 311 Company Employee Hierarchy Chart 149</p> <p>6 312 ABS Translator Current Issue List: 199-01-14 153</p> <p>7</p> <p>8 313 Memo from Martin Dempsey, 11-4-98 155</p> <p>9</p> <p>10 314 Card Reader chart 170</p> <p>11 315 Player-Tracking Specification Version 1.07 192</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

1 Whereupon,
 2 MARTIN DEMPSEY,
 3 having been first duly sworn to testify to the
 4 truth, the whole truth and nothing but the truth,
 5 was examined and testified as follows:
 6 (THIS DEPOSITION CONTAINS SENSITIVE
 7 CONFIDENTIAL AND BUSINESS CONFIDENTIAL
 8 MATERIAL.)

9
 10 EXAMINATION

11 BY MR. DOWELL:

12 Q. Mr. Dempsey, could you state your
 13 name, and spell your last name for the record.

14 A. Martin J. Dempsey. My last name is
 15 spelled D-e-m-p-s-e-y.

16 Q. What is your current address?

17 A. 2037 Sedona Creek Circle, Las Vegas,
 18 Nevada 89128.

19 MR. DOWELL: I have marked
 20 Exhibit 305.

21 I am going to mark as Exhibit 305 the
 22 notice for the deposition and also the subpoena
 23 that was, I believe, delivered to you.

24 (Exhibit 305 was marked for
 25 identification.)

1 BY MR. DOWELL:

2 Q. You probably haven't seen the first
 3 couple pages, which is the notice that we
 4 distribute among the lawyers, but if you could take
 5 a look at the subpoena attached to that, and tell
 6 me if you recognize it.

7 A. Well, I certainly recognize the third
 8 page and the fifth and sixth pages, which I was
 9 served.

10 Q. The third page is the -- it says at
 11 the top "United States District Court Subpoena In A
 12 Civil Case"?

13 A. That's correct.

14 Q. And the fifth and sixth pages are the
 15 Schedule A?

16 A. Yes.

17 Q. You also noted that we had
 18 inadvertently failed to provide the check for your
 19 fees and mileage, and we are currently getting that
 20 at this time. So you will receive that. I just
 21 want to make a note of that for the record.

22 A. Thank you.

23 Q. Now, attached to the subpoena, what
 24 you refer to as pages 5 and 6, is Schedule A.

25 Do you see that?

1 A. Yes.

2 Q. And it had a list of documents that
 3 you were requested to bring.

4 Did you search your files for the
 5 documents listed in that schedule?

6 A. In fact, I did. And I brought them.

7 Q. You brought approximately, I don't
 8 know, maybe a half-inch stack of documents?

9 A. Whatever I had.

10 Q. The request asked for you to look for
 11 any electronic or computer files.

12 Did you also look for that type of
 13 information?

14 A. Yes, I did.

15 Q. Did you have anything along those
 16 lines?

17 A. No, I did not.

18 Q. Are you represented by counsel here
 19 today, Mr. Dempsey?

20 A. I am represented by counsel but not
 21 here today.

22 Q. And who is your attorney?

23 A. April A. O'Brien.

24 Q. So for purposes of the deposition,
 25 you are not represented?

1 A. I will represent myself for this
 2 deposition.

3 If I think I need, I will give her a
 4 call and get her down here.

5 Q. Fair enough.

6 Could you describe your educational
 7 background.

8 A. Certainly. I graduated in 1980 from
 9 the Massachusetts Maritime Academy with a BSME.
 10 I was fifth in my class. I worked mostly overseas
 11 on oil rigs, gas tankers, and various other
 12 facilities that used process control technology and
 13 computers.

14 In the course of that employment, I
 15 went to other schools, such as the Cryogenic School
 16 in Baltimore, which deals with handling check calls
 17 that are cryogenic, which is below 250 degrees,
 18 such as liquefied natural gas.

19 Later, I went to University of
 20 New Hampshire, enrolled in a Ph.D. program. And I
 21 finished all my courses but have not yet submitted
 22 a thesis, and if I don't soon, I will be out.
 23 I believe they give you eight years. I'm very
 24 close.

25 Q. Well, good luck with that.

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1 The experiences that you mentioned in
 2 cryogenics, those occurred after your -- was that
 3 your undergraduate degree, then, from the
 4 Massachusetts Maritime Academy?
 5 A. It was between my undergraduate
 6 degree and my graduate work.
 7 Q. So do you have a Master's?
 8 A. No. Actually, at the University of
 9 New Hampshire, unlike some schools, you can either
 10 go into the Master's program for the Ph.D.
 11 program. And no matter how far you get down the
 12 Ph.D. program, you don't just get a Master's. You
 13 have to choose to do that separately if you want.
 14 Q. You have to go all the way, then?
 15 A. Uh-huh.
 16 Q. The BSME that you received from
 17 Massachusetts Maritime Academy, is that a Bachelor
 18 of Science in mechanical engineering?
 19 A. It's actually marine engineering, but
 20 it's very similar.
 21 Q. Could you describe what marine
 22 engineering is?
 23 A. Marine engineering is mechanical
 24 engineering but has additional chemical and
 25 computer components.

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1 Q. Is that directed to a particular
 2 industry?
 3 A. Basically, you know, it historically
 4 was ships. But today, it's basically power plants,
 5 oil, as well as, you know, marine applications.
 6 Q. What are the computer-related
 7 components of that educational program?
 8 A. Well, while it's quite dated, given
 9 that my degree was in 1980, I worked on CDC auto
 10 cyber mainframes, FORTRAN. Heavy emphasis in
 11 design. Took courses in Basic. Various computer
 12 languages.
 13 Q. The Ph.D. program that you are
 14 working on, what would that ultimately be?
 15 A. That would be a Ph.D. in computer
 16 science, and my specialty is artificial
 17 intelligence.
 18 Q. After your education, you ultimately
 19 worked for, of course, CDS, and CDS being Casino
 20 Data Systems, and Acres games; is that correct?
 21 A. That's correct.
 22 Q. Is the Ph.D. program or the degree
 23 you are pursuing related to the computer-related
 24 work that you did for those companies?
 25 A. You can certainly say it helps.

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1 Again, this is a very fast changing
 2 industry, and so, anything you learn five years
 3 ago, you know, in some ways is dated.
 4 The skills you learn and some of the
 5 theories you learn still come in handy.
 6 Q. Were you employed after obtaining
 7 your degree in 1980?
 8 A. Yes.
 9 Q. And who were you employed by?
 10 A. Energy Transportation Corporation.
 11 Q. And what was your responsibilities
 12 for that company?
 13 A. I was an engineer in charge of
 14 various plants and ships.
 15 Q. Where was that located?
 16 A. Their main office is 540 Madison
 17 Avenue in New York City.
 18 However, I worked for them mostly in
 19 the Far East.
 20 Q. How long did you work for Energy
 21 Transportation Corporation?
 22 A. Approximately six years.
 23 Q. So that took you up to about 1986?
 24 A. That's correct.
 25 Q. And what did you do after that?

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1 A. In 1986, I had enough of spending
 2 half my time overseas and took a year off and
 3 worked on a horse farm.
 4 Q. Where was that?
 5 A. In Woodstock, Vermont.
 6 Q. Where is your hometown?
 7 A. I was born in Pennsylvania, but about
 8 high school, my parents moved to Massachusetts.
 9 Before I moved out to Nevada, I lived
 10 in New Hampshire.
 11 Q. What did you do after working on a
 12 horse farm?
 13 A. I went and took a job for White
 14 Mountain Survey Company doing civil engineering and
 15 CAD in computers, and I worked for them
 16 approximately three years.
 17 Q. Did you have a title or position in
 18 that job?
 19 A. I don't actually recall. Certainly,
 20 I had a title, but probably, you could say MIS
 21 manager or something like that.
 22 Q. What type of survey work did you do?
 23 A. They were -- generally had a large,
 24 nationwide civil engineering practice where they
 25 would lay out planned communities, like Summerlin

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1 in scope, as well as a local survey firm where they
 2 would survey smaller parcels.
 3 Q. I am not familiar with Summerlin.
 4 What is that?
 5 A. Oh, right. Of course.
 6 Summerlin is a planned community in
 7 Las Vegas that has approximately 5,000 homes in it,
 8 supermarkets, shopping malls. And the entire
 9 project was designed from the ground up before
 10 anything was built as one unit.
 11 Q. How long did you work for that
 12 company?
 13 A. Well, I worked for them full time
 14 approximately three years, at which time I started
 15 doing consulting, and they remained my largest
 16 client, but I would work for other civil
 17 engineering firms and other engineering firms as
 18 well.
 19 Q. How would you describe the consulting
 20 work that you did, work for them and for others?
 21 A. I did an awful lot of custom
 22 programming, converting data from one sort of CAD
 23 format to another. I wrote various programs
 24 interfacing to data collection devices like the
 25 autolites.

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1 Q. What is an autolite?
 2 A. Theolite.
 3 Q. What is that?
 4 A. It is the device that you see
 5 surveyors using commonly where you will see them
 6 looking down the street to a guy with a rod, and
 7 the device is used to measure the distance and
 8 angle between two points.
 9 Q. That is controlled by software?
 10 A. The ancient ones, a surveyor used a
 11 pen and paper to write down, record the
 12 measurements, and about the time that I started
 13 doing this, they put a computer in that would
 14 automatically record all of the readings. And
 15 then, these readings would then have to be imported
 16 into a CAD program to draw a picture of what the
 17 land actually looked like.
 18 Q. And so, you were responsible for the
 19 programming that went into that computer controlled
 20 or the translation, I guess, from the optical
 21 device to the 3D generating software?
 22 A. Yes.
 23 Q. I think you said you were doing some
 24 consulting work in that area for about three years?
 25 A. Actually, I continued my consulting

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1 work while I went to University of New Hampshire,
 2 and continued to do it until I got a divorce and
 3 moved out here, at which point I got a job at CDS.
 4 Q. I guess it takes us up to about 1989,
 5 when you went back to the University of
 6 New Hampshire; is that correct?
 7 A. Roughly.
 8 Q. And then, you continued to do some
 9 consulting work while you were going to school?
 10 A. Had to pay the bills.
 11 Q. And then, when did you move out
 12 to -- was it Las Vegas, you moved out --
 13 A. Yes.
 14 Q. -- from Boston?
 15 A. Technically, it would be Henderson,
 16 which is a suburb.
 17 But I moved out July of 1996.
 18 Q. So from approximately 1989 to July of
 19 '96, you were doing consulting work and going to
 20 school at the University of New Hampshire?
 21 A. Overlapping periods, but yes.
 22 Q. And so, during that entire time, you
 23 were working in this, I guess, civil engineering,
 24 CAD type programming work?
 25 A. Well, when I did consulting, I also

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1 branched out and worked for, you know, a wide
 2 variety of companies. For instance, mail order
 3 houses. Again, mostly database translation.
 4 Basically, what anyone would pay me
 5 for.
 6 In addition, I did work with voice
 7 systems, such as the phone response systems that
 8 you commonly see.
 9 I did work for the marine science and
 10 engineering lab on underwater robotics.
 11 I worked at detecting fraud in
 12 various kinds of accounting systems.
 13 I mean, over the course of probably
 14 seven or eight years, I may have had a hundred
 15 clients.
 16 Q. During that time, can you describe,
 17 in general terms, what your specialty was.
 18 Although I understand you were in a lot of
 19 different fields, was there a particular area of
 20 expertise that you had that they would call you in
 21 for?
 22 A. Well, actually, all of my life, I
 23 have done very well being a generalist, and for
 24 instance, at one of the tasks I had at CDS is
 25 hardware design, which is sort of the lowest level

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1 that you can go.

2 The highest level task is, say,
3 artificial intelligence, and given my mechanical
4 background, I can do everything in between.

5 And there's an awful lot of places
6 where having a broader skill set comes in very
7 handy.

8 So generally, I would be called in
9 when you had a problem that spanned a couple
10 disciplines.

11 Q. Did all of them involve computer
12 programming, at least to some degree?

13 A. That's a pretty safe bet.

14 Q. How did you go about obtaining the
15 different consulting jobs or work that you -- the
16 variety of work that you obtained?

17 A. After the first year, where I did a
18 small amount of advertising, everything was word of
19 mouth, and I had plenty of business.

20 Q. Did you have an office that you --

21 A. The first year, I had an office.

22 And stupidly, it was 40 miles from my
23 house, and I decided I didn't need the commute or
24 paying the rent. And from then on, I worked out of
25 my house.

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1 Q. Would you typically work onsite at
2 companies or your clients when you would do work
3 for them?

4 A. It would depend on the job.

5 Hardware design or something that had
6 a large system that couldn't be moved, I would
7 obviously go onsite.

8 Other things that I could do out of
9 my house, I would.

10 Q. What is hardware design? Could you
11 describe that for me?

12 A. In most computers, the computer
13 itself is composed of printed circuit boards. And
14 hardware design is the actual choosing which
15 components would be put on the circuit board and
16 laying out the interconnections between them so
17 that you can then produce hardware.

18 Q. After that design work is done, what
19 do you do with it?

20 A. Well, the next step up from hardware
21 is something called firmware, which is programming
22 that goes into usually E-PROM chips that provide
23 the low-level drivers and the low-level
24 intelligence of the system.

25 Q. That firmware is programmed and

Page 19

1 burned into chips?

2 A. Yes.

3 Q. Is there a next step up?

4 A. The next step up would be software,
5 and, you know, operating systems and applications
6 that go on top of that.

7 Q. And so, you had experience during
8 this time period of '89 to '96 in the whole gamut
9 or range there in programming?

10 A. Yes.

11 Q. When you would design hardware, is
12 that given to a circuit board manufacturer, then,
13 to make based on your specification or your design?

14 A. Either by the company that I worked
15 for or an outside firm, yes.

16 Q. How about firmware. I am trying to
17 get an understanding of how you fit into -- what
18 your specialty is.

19 With firmware, is that something you
20 just design, and then, someone else does the manual
21 programming work, or is that what you do yourself?

22 A. It varies to a large degree.

23 If you have something like a laptop
24 that is going to have a large run of 50,000 units
25 or more, commonly, the chip, the firmware is

Page 20

1 actually burned into the chips at the assembly
2 line.

3 If you have a small run, it can be,
4 you know, loaded at, you know, the point of use or
5 down the road.

6 Q. During this period from '89 to '96,
7 did you do any work in the gaming industry?

8 A. No, I did not.

9 Q. Did you do any work on controlling
10 large numbers of devices, like similar to slot
11 machines, the work you did later, anything along
12 those lines?

13 A. Well, again, if you look at, say, an
14 oil plant, they would have hundreds or thousands of
15 various intelligent components out in the field,
16 valves, motors, various kinds of pumps and such.

17 And the data acquisition and control
18 of that is pretty similar to slot machines.

19 In fact, most of them historically
20 have even used the same 485 network that is
21 commonly used by slot machines.

22 Q. What is a 485 network?

23 A. There's various forms of computer
24 networks that are used for various purposes, and
25 one of which is referred to as RS 485. And this is

Page 21

1 a low-speed, noise-immune, long-distance network
 2 that is designed for industrial control.
 3 Q. Low-speed, noise-immune system for
 4 industrial control?
 5 A. (No audible response.)
 6 Q. What is the significance of it being
 7 low speed?
 8 A. Well, everything is a trade-off.
 9 Everything else being equal, higher speed is
 10 better.
 11 But to make it be able to survive,
 12 say, in an oil facility where there is very large
 13 electrical motors starting and stopping or in a
 14 casino, where, again, there's a wide variety of
 15 equipment, to get that noise immuneness, one of the
 16 things you trade off is speed.
 17 And it turns out that if you're
 18 turning on a valve or controlling a slot machine,
 19 high speed is not very important to you.
 20 Q. What type of system would the speed
 21 be more critical? Like an automobile?
 22 A. Most commonly, say, web browsing
 23 where, of course, if it's low band width or low
 24 speed, the users tend to wait a long time to see
 25 pictures come in.

Page 22

1 Q. But it is not as critical if you
 2 don't get your thousand dollars win from the slot
 3 machine in a nanosecond or something?
 4 A. Well, a thousand-dollar win from a
 5 slot machine is actually a very small message, so
 6 you don't need much speed to get it across the
 7 floor.
 8 Q. You mentioned oil plants or something
 9 along those lines as an example of when you had
 10 previously done these low-speed, noise-immune
 11 systems?
 12 A. Yes.
 13 Q. Who did you do that work for?
 14 A. Basically, Energy Transportation, and
 15 they had a very large contract with Castrol, which
 16 is a British oil company, or various other firms.
 17 Q. Any other firms where you gained
 18 experience in those types of systems, with
 19 low-speed, noise-immune data transfers in
 20 connection with a large number of computer control
 21 components?
 22 A. Probably a smaller number of
 23 components, but certainly, even at the marine
 24 science and engineering lab, they had multiple
 25 autonomous underwater robots. And, again, this was

Page 23

1 low speed, very noise-immune communications given
 2 that it was run underwater on sonar.
 3 Q. Any others?
 4 A. I can't recall any at this time.
 5 Q. In your experiences prior to July of
 6 '96, had you had any -- had you done any work
 7 with card readers?
 8 A. Magnetic card readers?
 9 Q. Any type of card readers.
 10 A. I had used bar codes before, but not
 11 magnetic card readers.
 12 Q. Bar codes are like you see in a
 13 supermarket where you --
 14 A. One method of optically encoding a
 15 card.
 16 Q. So that experience in bar codes
 17 involved optically recognizing data?
 18 A. Yes.
 19 Q. What is the similarity of that to
 20 magnetic card readers?
 21 A. Well, as soon as you get one step up
 22 from the hardware, everything is the same. It
 23 doesn't particularly matter too much to the
 24 software or any other part of a system what format
 25 a card is, you know, whether it be optical or

Page 24

1 magnetic or what sort of magnetic card; or now,
 2 they also have something called smart cards, which
 3 are even more intelligent.
 4 But basically, it's putting a number,
 5 assigning a number or a bunch of numbers to a
 6 device and reading it.
 7 Q. After July of '96, did you acquire
 8 experience with magnetic card readers?
 9 A. CDS certainly used optical and
 10 magnetic card readers.
 11 I was certainly involved with the
 12 firmware for that.
 13 Q. That was the first time that you had
 14 been involved with any of the programming of
 15 firmware for magnetic card readers, when you were
 16 at CDS?
 17 A. That's correct.
 18 Q. Going back to the distributed
 19 industrial control systems that we were talking
 20 about a second ago, in any of the systems, did they
 21 have a host computer?
 22 A. Oh, yes.
 23 Q. Is that a necessary element of a
 24 distributed system?
 25 A. Well, it's not technically a

Page 25

1 necessary element of a truly distributed system,
2 but it's a very common way to run most systems.

3 Q. Why is that?

4 A. It turns out that it's easier to
5 centralize stuff in one place than it is to do
6 pier-to-pier without a host.

7 It's nice to be able to take all the
8 information in a system and put it on one computer
9 where it's easy to work on.

10 So for instance, the control room at
11 an oil plant would have a host computer.

12 Q. What are the advantages of having all
13 the information in a system on one computer where
14 it is easy to work on?

15 A. Communications is hard. Anytime you
16 use communications, you can have communication
17 links break.

18 So by centralizing the information,
19 there's a lot of things you don't have to worry
20 about.

21 Q. Such as?

22 A. For instance, failing or having
23 timing problems reading information.

24 Q. When you have this host computer, can
25 the operator then control, typically, the entire

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1 system from that computer?

2 A. Yes. Yes. That's the goal.

3 Q. In a distributed system such as this,
4 does each control device typically have a unique
5 address?

6 A. There needs to be, of course, a way
7 of specifying it.

8 For instance, in an oil system where
9 you have a hundred valves, and you say, "open," you
10 need to be able to specify by an address which one
11 or ones.

12 Q. So each valve, then, will have a
13 unique identifier that the computer will know and
14 be able to access and control?

15 A. Yes. A valve number or a location.
16 Again, in some ways similar to slot machines for
17 the same purpose.

18 Q. How long have distributed control
19 systems with a host computer, multiple devices with
20 a unique address like this, in general terms, how
21 long has that type of technology been around?

22 A. Certainly, the earliest nuclear
23 reactors used exactly the same thing you're
24 discussing, a host computer with devices. And I
25 believe that that would be the early to mid '50s.

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1 Q. In these systems, is it possible for
2 the host computer to select only a portion of all
3 the devices and have them do a particular thing?

4 A. Well, of course.

5 For instance, in a nuclear power
6 plant, when the reactor scrams, you wish to open a
7 group of valves and close another group, but
8 certainly not all.

9 Q. So it is fundamental in a system like
10 this that you don't have the same command going to
11 everything?

12 A. Absolutely.

13 Q. And the computer is able to preselect
14 certain ones of the devices and have them do a
15 certain thing?

16 A. Correct.

17 Q. How long has that technology been
18 around, where this distributed system could
19 preselect a certain number of the devices and have
20 them do a certain thing?

21 A. Again, I would -- the earliest I
22 know of would be some of the systems on Naval
23 vessels and nuclear plants, which would be the
24 early '50s.

25 Q. You mentioned as an example a nuclear

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1 power plant.

2 And you mentioned a meltdown
3 situation where you would want to open up certain
4 valves, close certain valves, isolate part of the
5 system.

6 Could that type of system be set to
7 be triggered on the onset of a certain event?

8 A. Of course.

9 Q. How is that done, in general terms?

10 A. In fact, nuclear plants have one
11 unredeeming feature, which is, they go critical.
12 And when this happens, the energy they generate
13 spikes. And one nuclear plant in a hundredth of a
14 second can generate enough electricity for the
15 entire country.

16 The problem is that this much heat
17 will melt it very quickly, and the reaction time
18 involved between the onset of this problem and
19 getting the thing shut down is critical. And it's
20 much quicker than a human can react.

21 And so, even the earliest ones would
22 have a sensor that detected, you know, overheating
23 conditions or a flux of radiation and would
24 automatically take action to control it.

25 Q. Upon that event, then, send signals

Page 29

1 to certain ones of the devices to do certain
2 things?
3 A. Traditionally dropping the control
4 rods would be the first thing you would do.
5 Q. I think we got up to 1996. You
6 ultimately worked for at one time CDS and later
7 Acres Gaming?
8 A. I worked for CDS in 1996.
9 When I left CDS, I went to a company
10 called SpinTek, and after about 11 months, I went
11 to Acres.
12 Q. You are not currently employed by
13 either of the companies?
14 A. That's correct.
15 Q. I should have done this at the
16 beginning.
17 My name is Tony Dowell, and I
18 represent Computer Data Systems.
19 We also have attorneys, of course,
20 from Acres present.
21 You are not affiliated, then, with
22 either one of the parties to this action?
23 MR. RIEDINGER: Do you mean Casino
24 Data Systems?
25 THE REPORTER: You said, "Computer

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1 Data Systems."
2 MR. DOWELL: I am sorry about that,
3 yes.
4 BY MR. DOWELL:
5 Q. That is correct, Casino Data
6 Systems.
7 My question was: You are not
8 affiliated or presently have any ties with either
9 of the parties to the litigation that is currently
10 going on?
11 A. That's correct. I am not employed
12 nor doing consulting at this moment for either.
13 Q. Do you currently own any stock or
14 interest in either one of the parties?
15 A. I am currently out of the gaming
16 stock market.
17 Q. Do you have any stock options in
18 either of the companies?
19 A. I don't know if my stock options with
20 Acres have technically expired or not, but they are
21 \$2 under water, and it's not likely that they would
22 expire in the money.
23 Q. So you are not going to --
24 A. I have no --
25 Q. -- receive any benefit from those?

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1 A. It does not look like I will receive
2 any benefit from those, nor do I have any plans to
3 exercise them.
4 Q. In principle, is there any difference
5 between -- I am looking back on your experience.
6 Is there any difference in principle between these
7 distributed systems, like in a nuclear plant that
8 we were talking about, and in slot machines, from
9 the computer in a nuclear plant telling certain
10 valves or control rods to do something and a
11 computer in a casino telling certain slot machines
12 to do something?
13 MR. RIEDINGER: I am going to object
14 on the basis it calls for an opinion.
15 THE WITNESS: Certainly, the failures
16 would be much more serious in a nuclear plant.
17 BY MR. DOWELL:
18 Q. How about the computer-related
19 aspects of it? Is there any difference in that
20 area?
21 MR. RIEDINGER: Same objection.
22 THE WITNESS: Would you rephrase that
23 question or say it again, read it back.
24 BY MR. DOWELL:
25 Q. Based on your experiences and

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1 knowledge of distributed systems in industrial
2 settings and in casinos, is there any difference in
3 the software in computer control aspects of
4 controlling a certain number of slot machines
5 versus controlling a certain number of valves or
6 control roads in an industrial setting?
7 MR. RIEDINGER: Same objection.
8 THE WITNESS: It seems very similar
9 to me.
10 BY MR. DOWELL:
11 Q. So in July of 1996, did you stop your
12 broad-based consulting work?
13 A. Yes.
14 Q. And went to work for CDS, correct?
15 A. I actually started at CDS in
16 September of 1996, I believe.
17 Q. How did you come to work for CDS?
18 A. I came to Las Vegas first because I
19 wanted the climate, and I wanted to be far from the
20 East Coast after my divorce, and I didn't want to
21 be in California.
22 Once I was in Las Vegas looking
23 around with my set of computer skills, there was a
24 small number of obvious candidates for jobs, and I
25 applied at a selection of them, and CDS made me a

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1 good offer that I accepted.

2 Q. Was there anything that attracted you
3 to the gaming industry with your background and set
4 of skills?

5 A. As we talked about, it seemed like a
6 good match. I mean, it seemed like a fun
7 industry. It seemed like a challenge, you know.

8 Q. How were your responsibilities
9 described? Let me rephrase that.

10 Did anyone at CDS describe what your
11 responsibilities would be?

12 A. Before I was employed there?

13 Q. Before you were employed there.

14 A. Of course.

15 Q. And how were those described?

16 A. The first description I saw was in an
17 advertisement in the paper.

18 And then, during the interviewing
19 process, they went into detail as to what I would
20 be doing were I employed.

21 Q. And what were the details that you
22 were provided?

23 A. The position I applied for was
24 manager of electrical engineering, and they
25 explained that I would be in charge of the hardware

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1 and firmware for their Oasis division and the
2 engineers in it.

3 Q. What is the Oasis division?

4 A. CDS, like many companies, has a bunch
5 of semi-autonomous divisions.

6 In CDS, they have a division for
7 R and D, they have a division for their wide-area
8 progressive games, they have a division that
9 produces their slot machines, and they have the
10 Oasis division, which is their player tracking,
11 slot accounting division.

12 Q. And you were going to be in charge of
13 that entire division?

14 A. No. I was going to be in charge of
15 the hardware and firmware for that division.

16 Q. This is based on your earlier
17 testimony. You were going to be in charge of,
18 what, the hard wiring -- or, the design of the
19 hard wiring of circuit boards for the player
20 tracking, slot accounting division?

21 A. And the software/firmware that would
22 go onto those boards.

23 Q. How many people were you to have
24 under your management responsibilities?

25 A. Approximately five.

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1 Q. Were the job responsibilities or
2 day-to-day tasks of these people to be
3 programming? Is that accurate?

4 A. About half would be programming.
5 Board design is separate, not programming.

6 Q. Were there any other individuals in
7 CDS, not in your group, that were doing programming
8 related to the Oasis?

9 A. Oh, yes. There were approximately
10 ten or more that were doing the software and
11 database back end.

12 Q. Could you describe what that is, the
13 software and database back end?

14 A. In CDS's system, in each slot
15 machine, they have a device called a Sentinel,
16 which is a very small computer.

17 That would communicate over one of
18 these 45 networks back to a device called a DPU,
19 which is a router or a concentrator, and that would
20 talk 485 back to a computer called a Polar.

21 And from the Sentinel up to the Polar
22 was in my group. And from the Polar and everything
23 else would be in the software group.

24 Q. I would, of course, like to pull out
25 diagrams and maps, but we have confidentiality

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1 issues, as I am sure you can imagine.

2 A. Well, I believe that a map such as
3 you're talking about would be familiar to any of
4 your customers and would be used in CDS's sales
5 literature. I'm not certain it would be
6 confidential at that level, depending on how
7 detailed it was.

8 MR. DOWELL: I like to take a break
9 about every hour. Usually, there is someone that
10 can use it, whether it is one of the attorneys, the
11 witness, or the court reporter. So we have been
12 going about an hour. Why don't we take a break and
13 come back in about five or ten minutes.

14 THE WITNESS: Okay.

15 (There was a recess taken.)
16 (Exhibit 306 was marked for
17 identification.)

18 BY MR. DOWELL:

19 Q. I am going to mark as Exhibit 306 a
20 document that is Bates numbered -- that is those
21 little numbers that are stamped down at the
22 bottom -- CDS 2000002 through -3, and it looks
23 like a document signed by you and dated
24 September 8th, 1997.

25 Do you recognize this document?

1 A. Yes, I do.
 2 Just by the way, note that my last
 3 day of employment at CDS would have been
 4 September 8th, 1997.
 5 Q. What is this document?
 6 A. This is an employee patent and
 7 confidential information agreement.
 8 Q. And what is the significance of this
 9 confidentiality agreement that you signed with
 10 Casino Data Systems?
 11 A. CDS has many things that they
 12 consider proprietary that they would not like their
 13 competitors to know. This document limits what an
 14 employee may say to whom.
 15 Q. You understand, pursuant to this
 16 document, your obligation to keep specific facts
 17 and information that is proprietary to CDS
 18 confidential?
 19 A. Yes, I do.
 20 Q. While I am thinking of it, have you
 21 ever given a deposition before?
 22 A. Oh, yes.
 23 Q. Have you ever given testimony at
 24 trial before?
 25 A. Yes.

1 Q. What types of cases have you provided
 2 testimony before?
 3 A. Bankruptcy, primarily, in mail order
 4 businesses. When there was hints of fraud,
 5 sometimes I would testify as to what I found on
 6 their computer systems as an expert witness.
 7 Q. When have you served as an expert
 8 witness in those fields?
 9 A. During my consulting days.
 10 Q. So you have been qualified by a court
 11 of law as an expert in what?
 12 A. Various computer issues.
 13 Q. How many times?
 14 A. I can't tell you an exact number, but
 15 a few.
 16 Q. Can you give me a ballpark? Are we
 17 talking two or three or ten, twenty?
 18 A. I'd rather not guess, but it would be
 19 more than ten.
 20 Q. More than ten?
 21 A. Yes.
 22 Q. During what time period was this?
 23 Was this, when we are talking about, from 1989 to
 24 1996?
 25 A. Yes.

1 Q. So it is fair to say that -- how
 2 many times did you give trial testimony?
 3 A. I can't recall. Most cases would
 4 settle, of course, so, you know, infrequently.
 5 Q. More than once that you gave trial
 6 testimony?
 7 A. I've been in court a number of times
 8 on various issues.
 9 Q. Do you recall any of the specific
 10 courts that you were in?
 11 A. Back in New Hampshire, I suppose it
 12 would be like Carol County District Court.
 13 Q. A state court?
 14 A. Yes.
 15 Q. Did you ever give testimony in the
 16 federal court?
 17 A. Not that I know of.
 18 Q. How about in federal bankruptcy
 19 court?
 20 A. Perhaps once.
 21 Q. Did you go through the process where
 22 a lawyer asks you about your background and your
 23 qualifications in order to qualify or -- I guess,
 24 to qualify you as an expert?
 25 A. I don't recall the exact process in

1 federal court, but certainly, what we did this
 2 morning, where you went through my background,
 3 seemed fairly familiar.
 4 Q. In the testimony that you have given,
 5 have you ever had anyone or any court reject your
 6 testimony as being unqualified?
 7 A. I don't think so.
 8 In this particular case, both CDS and
 9 Acres chose to employ me, so I think that they
 10 might both have a hard time claiming I was
 11 unqualified, wouldn't they.
 12 Q. Fair enough.
 13 So it is fair to say that on many
 14 occasions, you have been utilized as an expert in
 15 the computer programming field?
 16 A. I have certainly been involved with
 17 computers and legal issues before.
 18 Q. When providing testimony, can you
 19 describe what your area of expertise has been in
 20 the legal disputes you have been involved with?
 21 A. I mean, it varies depending on the
 22 case. I mean, you're familiar with my background.
 23 It would be those areas I would feel comfortable
 24 giving an opinion.
 25 Q. I ask you not so much to retread the

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1 ground we already went over but to put a name on it
2 or put it in a box and say you can generalize and
3 say this man's expertise is what.

4 A. 90 percent of large computer systems
5 seem to be involved with accounting one way or
6 another. And many cases, if you have an accounting
7 failure or dispute, it could end up in court.

8 Engineering seems an awful lot less
9 likely, in my history, to be an issue in court.

10 Q. So would you say that your area of
11 expertise in your prior work has been in the area
12 of distributed computer systems?

13 A. No. Not as far as anything in court
14 goes.

15 Q. So not necessarily in that particular
16 area?

17 A. The distributed computer systems,
18 such as the oil facilities, Naval ships, tankers,
19 liquefied natural gas plants, power plants, I don't
20 know that I've ever been qualified as an expert or
21 testified in regards to one of them.

22 Q. You have just had practical, hands-on
23 experience in those areas, then, correct?

24 A. That's correct.

25 Q. Do you have a subject for your Ph.D.

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1 thesis?

2 A. It as a distributor of artificial
3 intelligence and planning.

4 Q. Could you describe what that is?

5 A. The types of distributed systems
6 we're talking about are relatively stupid, and the
7 information tends to flow up to the host computer
8 where it's processed.

9 Artificial intelligence involves
10 having a distributed system being built out of much
11 more intelligent units that each can make decisions
12 on their own and how to get these to cooperate in
13 an efficient manner.

14 Q. Does the Acres Gaming system have
15 that type of artificial intelligence system?

16 A. No. I don't believe anyone in the
17 gaming industry is using that yet.

18 Q. So all of the distributed systems in
19 the gaming industry are the simple type?

20 A. Pretty straightforward.

21 Q. The kind that have been around for a
22 long time?

23 A. Yes.

24 Q. Before we broke, I was asking you
25 some questions about your role at CDS in comparison

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1 with other programming personnel.

2 From your time at CDS, did you ever
3 see an Oasis II system overview, basically a map of
4 the different components of the Oasis II system?

5 A. I think I've probably seen many
6 different versions similar to that.

7 (Exhibit 307 was marked for
8 identification.)

9 BY MR. DOWELL:

10 Q. I give you a document that I have
11 just marked as Exhibit 307.

12 Do you recognize what that document
13 is or depicts?

14 A. It looks like a drawing of how the
15 various pieces in an Oasis system are hooked
16 together.

17 Q. Is that something that you are
18 familiar with from your time at CDS?

19 A. Yes.

20 Q. So I am not showing you anything that
21 you have not seen before?

22 A. I don't know if I have seen this
23 exact document, but certainly many like it.

24 Q. In reference to this, can you point
25 out -- I recognize from your earlier testimony,

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1 some of the terms that are on here, such as Polar,
2 I think I recognize.

3 Was there a particular area of this
4 chart that you were responsible for at CDS?

5 A. Yes. Basically, it would be the
6 green links and network devices that are linked
7 together with the green highlight.

8 And that would go from the hostess
9 drawing at the Polar through the ONC to the turbo
10 DPU down to the Sentinel.

11 Q. How did you describe this area of
12 responsibility? You gave me a term for it before
13 the break.

14 A. Hardware and firmware?

15 Q. Yes. Now, is hardware and firmware
16 involved in the other areas of this system?

17 A. Certainly, CDS has other hardware and
18 firmware areas.

19 Primarily, they would be the gaming,
20 the games themselves, where CDS builds their own
21 games.

22 The other main area where CDS would
23 have hardware and firmware would be the sign
24 division with the external and overhead signs. And
25 I was not really involved with that much.

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1 Q. So you worked for CDS for about a
2 year?

3 A. Exactly one year, to the day.

4 Q. Exactly one year, to the day.

5 And then, what did you do after that?

6 A. I had received a very good offer from
7 SpinTek Gaming, with a salary increase. And I
8 accepted that position and started at SpinTek as
9 director of engineering.

10 Q. What does SpinTek make?

11 A. SpinTek makes slot machine
12 peripherals, primarily -- their prime device is a
13 weighing hopper.

14 Q. What is a weighing hopper?

15 A. A weighing hopper is a hopper, a
16 device that holds the actual coin in the slot
17 machine, combined with a load cell that can
18 actually weigh how many coins are in the device and
19 then communicate that back to a host system.

20 Q. What were your responsibilities as
21 the director of engineering at SpinTek?

22 A. I was basically involved with doing
23 the hardware and firmware for their systems.

24 Q. Who were these systems marketed to?

25 A. In general, casinos. Anyone that

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1 would have slot machines would theoretically be a
2 customer.

3 However, you know, practically, it
4 would be customers with many slot machines.

5 Q. This is a device that was added to
6 existing slot machines?

7 A. That's correct.

8 Q. Why would a company add one of these
9 devices to a slot machine that was already
10 installed?

11 A. On the floor of a casino, in the
12 hoppers, there would be millions of dollars in
13 coins, and should a person open up these devices
14 and scoop handfuls of coins out, there would be no
15 computerized way to determine this. You would have
16 video.

17 Given that many slot techs are going
18 in and out of machines for various good reasons all
19 day long, it would be hard to determine if you were
20 losing money due to theft.

21 One of the big advantages of the
22 SpinTek hopper would be that you could determine if
23 someone took even one coin out of that hopper.

24 Q. You can tell that constantly, then,
25 with this system?

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1 A. Yes. In fact, the SpinTek system
2 hooks up to Oasis. There's an agreement between
3 the two companies.

4 (Mr. Schodde and Mr. Broaddus
5 exited the deposition room.)

6 BY MR. DOWELL:

7 Q. How long were you with SpinTek?

8 A. About 11 months.

9 Q. Where did you go after that?

10 A. After that, I went to Acres.

11 Q. How did you come to move from SpinTek
12 to -- could you describe the circumstances of your
13 move from SpinTek to Acres?

14 A. At SpinTek, my direct supervisor was
15 Robert Guinn, and he and I had a few issues, and I
16 decided to seek employment elsewhere.

17 Q. What kind of issues?

18 A. Personality issues.

19 The weighing hopper product for
20 SpinTek was completely finished, and their new
21 product hadn't started yet. And so, there was a
22 sudden lack of work, and we haven't handled this
23 well.

24 Q. Could you describe what you mean?
25 How was it not handled well?

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1 A. He wished me to do busy work and make
2 work, and I wasn't very happy to do that, and we
3 had a few talks about it, and I decided to find
4 someplace that had a challenge.

5 Q. At least in the gaming industry, is
6 your work kind of cyclical where you have really
7 very busy times, and then you get a system
8 installed, and you have a downtime for a while?

9 A. Well, it seems to be a yearly cycle
10 with the gaming show, where people tend to get busy
11 to get new product out for the gaming show.

12 Or whenever the sales department
13 makes a commitment, sometimes engineering has to
14 scramble to keep up.

15 But overall, I would say that gaming,
16 since I've been here in '96, has been pretty good,
17 pretty steady.

18 Q. How did you first make contact with
19 Acres?

20 A. A gentleman that I used to work for
21 at CDS, named Rich Schneider, had left to go to
22 Acres years earlier, a year earlier.

23 And when I needed to find a new place
24 to work, I started calling up people that I knew in
25 the industry that might have jobs available, and

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1 Rich suggested that, in fact, Acres was hiring and
 2 asked me to see a gentleman named Pat Powers.
 3 Q. What was your relationship with
 4 Mr. Schneider at CDS?
 5 A. I believe Rich's title at CDS was
 6 vice president of game development or something
 7 similar.
 8 He was in the gaming division, not
 9 the Oasis division. And so, he was, you know, in
 10 physical terms, let's say, above and kind of
 11 towards the side.
 12 But we had a couple products where
 13 games and systems talked together, and in these
 14 products, I interfaced with him, and we debugged
 15 some problems together.
 16 Q. Is he a personal friend?
 17 A. I would hope so. I mean, he's not a
 18 close friend, but I would have a beer with him.
 19 Q. So Mr. Schneider put you in contact
 20 with Mr. Powers?
 21 A. Yes.
 22 Q. What was Mr. Powers' position at
 23 Acres?
 24 A. Pat Powers was in charge of
 25 developing what they referred to as the Wizard

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1 system, which is a SQL database version of their
 2 player tracking and bonusing system or accounting
 3 bonusing.
 4 Q. What does "SQL database" mean?
 5 A. Acres' previous products that
 6 involved systems were in conjunction with IGT and
 7 used the IGT database. And it used all of Acres'
 8 hardware and firmware, but the back part of it,
 9 what I have referred to as, you know, all the
 10 computers, not the hardware, were IGT components.
 11 And with the Wizard system, Acres
 12 decided to produce actually that back part of the
 13 system themselves.
 14 Q. You were just making hand motions
 15 towards the Oasis map, I guess, and you were
 16 talking about what I think you called the back part
 17 of the system.
 18 For the Oasis system, what is the
 19 back part of the system on that?
 20 A. The back part of all of the systems
 21 would be all of the various computers and
 22 applications that run the software and the
 23 database.
 24 Q. That is the software that takes care
 25 of tracking players as well as controlling slot

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1 machines; is that correct?
 2 A. Sure. It has bunches of features.
 3 Q. Then what is the other part of the
 4 system, other than the back part?
 5 A. Let's call it the front part.
 6 Q. The front part?
 7 A. And the front part would be the stuff
 8 that isn't in the back room. It's the stuff that's
 9 out on the casino floor, i.e., with the CDS system,
 10 it would be the communication wires and devices
 11 that actually attach to the slot machine and
 12 transmit the data to the back part.
 13 Q. How long has Acres made the front
 14 part?
 15 A. Oh, I don't know. Since years.
 16 I believe John Acres was the first person in the
 17 industry to develop a slot system, long before I
 18 got here.
 19 Q. So that has always been their
 20 product, the front part of the system, correct?
 21 A. Well, they previously did entire
 22 systems as well.
 23 Before they entered into a business
 24 arrangement with IGT, they had an entire system
 25 built on Paradox, I believe, and it's still in use

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1 at some casinos in town.
 2 Q. Did there come a time, then, when
 3 Acres stopped making their own back part of the
 4 system and hooked up with IGT?
 5 A. You're asking me questions out of my
 6 area.
 7 Q. It was before your time?
 8 A. Yeah.
 9 Q. Okay.
 10 A. And not only before my time, you
 11 know, but much higher level than me who decides
 12 what hooks to whom. That would be a good question
 13 for John Acres.
 14 Q. I am trying to get a feel for what
 15 this Wizard system was going to do differently than
 16 what Acres had done before.
 17 Is it fair to say that the system
 18 that Pat Powers was developing was going to replace
 19 Acres' dependence on IGT for its supply of the back
 20 part of the system?
 21 A. I think that's a good
 22 characterization.
 23 Q. When did Acres start to develop this
 24 back part of the system?
 25 A. I don't know. It would have been

1 before I got there, I guess.
 2 I know that when I was hired in
 3 approximately September '98, it was underway.
 4 Q. Do you know how long this had been in
 5 development at Acres?
 6 A. Before my time.
 7 Q. About how long before?
 8 A. Well, it wasn't finished. I mean, I
 9 would assume it would be less than a year.
 10 Q. Where was the first installation of
 11 the Wizard system?
 12 A. At Mandalay Bay.
 13 Q. And when was that?
 14 A. Well, the first full installation was
 15 at Mandalay Bay, and Mandalay Bay opened on
 16 March 2nd, I believe, 1999.
 17 Previous to that, there was a test
 18 system that was put in at Silver City, as is normal
 19 in this case.
 20 Q. When was that?
 21 A. Certainly before New Year's Day. So
 22 it would have been in late 1998.
 23 Q. At what stage of development was the
 24 Wizard system when you started at Acres in
 25 September of '98?

1 A. The accounting part -- the database
 2 schema, the data base design had been done, and the
 3 accounting part was underway.
 4 It did certain accounting functions,
 5 but not the complete set that would be required.
 6 And the translator, which is the program that I
 7 worked on, would be -- was working at least enough
 8 to do limited data transfers into the back end of
 9 the system but, again, was missing large pieces of
 10 functionality.
 11 Q. I think you gave a partial definition
 12 there, but what is the translator?
 13 A. The translator is a software program
 14 that runs on a normal PC that doesn't have a direct
 15 analog, exact analog in the CDS system.
 16 It would be somewhat equivalent to
 17 the transaction processor in this diagram.
 18 Its purpose was to be the final
 19 division between the front and back part. It was
 20 the meeting point where the data from the floor
 21 would end up in the database, and data in the
 22 database would end up on the floor.
 23 Q. From the term that is used in
 24 documents and that you used, referring to it as a
 25 translator, what is translated?

1 A. Well, it's somewhat of a misnomer as
 2 regards the Wizard system.
 3 However, bearing in mind its history,
 4 originally what it did with the IGS/IGT system was
 5 that it translated the floor Acres protocol into
 6 IGT's protocol for their system.
 7 Q. So historically, it served this
 8 translation function?
 9 A. That's correct. It communicated with
 10 the IGT host which ran on a UNIX machine.
 11 In some ways, you could say a SQL
 12 database is similar to a host, and its job was to,
 13 again, translate the floor protocol to that
 14 database. It's a little bit of a stretch.
 15 Q. What is the SQL -- is that the term,
 16 SQL database?
 17 A. Yeah. SQL is generally spelled
 18 S-Q-L.
 19 And the particular SQL database being
 20 used was Microsoft SQL server. And this is a
 21 modern, large, reliable database that Acres chose
 22 to use for this product.
 23 Q. The SQL database, Acres did the
 24 programming and all the hardware for that element
 25 of the system, right?

1 A. Well, the database itself is a
 2 program that you buy from Microsoft, but certainly,
 3 all of the programming to make it store the correct
 4 data and, you know, produce the correct reports and
 5 such was done by Acres.
 6 Q. Is there a corollary -- prior to the
 7 Wizard system, was there a SQL database in any
 8 Acres system in, say, '95 or '94?
 9 A. No. I believe that Acres' previous
 10 system used Paradox.
 11 Q. Is there a corollary to the Oasis
 12 system on the map for a SQL database?
 13 A. Well, it's not specified very well on
 14 the map, but it would be the file server and the
 15 database that CDS used. Again, it would be
 16 Btrieve. B-t-r-i-e-v-e.
 17 Q. Is it all capitalized?
 18 A. I think just the first letter is.
 19 Q. Did the Wizard system have a player
 20 tracking function?
 21 A. Not in Mandalay Bay. I believe they
 22 are working on it now.
 23 Q. Didn't it during the time that you
 24 were at Acres?
 25 A. No. The floor hardware provided the

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1 basic ability to count, you know, points for a
 2 player. And all the Acres system did with this was
 3 pass it on.
 4 Q. Pass it onto what?
 5 A. Passed it onto the player tracking
 6 system you had. In Mandalay Bay's case, that would
 7 be Tom Bodenstag software.
 8 Q. When was that software implemented in
 9 the system?
 10 MR. RIEDINGER: Objection. Vague.
 11 Which software do you mean by "that software"?
 12 BY MR. DOWELL:
 13 Q. The Tom Bodenstag software.
 14 A. There was an interface to Bodenstag
 15 software running sometime in December of 1998.
 16 Q. Where on the system does the
 17 interface to the Bodenstag software run?
 18 MR. RIEDINGER: Objection. Vague.
 19 Which system?
 20 BY MR. DOWELL:
 21 Q. You can answer.
 22 A. Would you repeat that question.
 23 Q. Where in the system does the
 24 interface to the Bodenstag software run?
 25 A. There is a computer in the back part

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1 of the system that's referred to as BIF, or the
 2 program is referred to as BIF, which stands for the
 3 Bodenstag Interface Program.
 4 Q. Is that a computer that is -- that
 5 is all that computer does?
 6 A. Correct.
 7 Q. Do you know who at Acres did the
 8 programming for the Bodenstag Interface Program?
 9 A. With the exception of one week when
 10 he was on vacation, when I worked on it a little,
 11 the gentleman's name was Perry Waldner.
 12 Q. Do you know if the Bodenstag
 13 Interface Program is completed at this time?
 14 A. Well, it's been working at Mandalay
 15 Bay since opening.
 16 Q. So that is something --
 17 A. Software is never finished.
 18 Q. When was it functional first?
 19 A. Fully functional?
 20 Q. When was the Bodenstag part of the
 21 system able to communicate with the rest of the
 22 system or the first or latest date?
 23 MR. RIEDINGER: Objection. Assumes
 24 facts testified to. Assuming the Bodenstag system
 25 was on the Acres system.

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1 THE WITNESS: I believe that we were
 2 sending data back and forth to his AS/400 probably
 3 in December.
 4 BY MR. DOWELL:
 5 Q. What involvement did you have on the
 6 programming for the Bodenstag Interface Program?
 7 A. I was involved with some of the
 8 initial talks with Tom, and for one week when Perry
 9 went on vacation, I helped the people in Jackson,
 10 Mississippi, System Source, take care of some of
 11 the communications issues, low-level
 12 communications.
 13 Q. What is the role of the people in
 14 Jackson, Mississippi, System Source, in the
 15 Bodenstag Interface Program?
 16 A. I don't really know, except, you
 17 know, from what Tom has mentioned, and it seems to
 18 be they're subcontractors or partners or something.
 19 Q. Of his?
 20 A. Yes.
 21 Q. Tom Bodenstag -- Bodenstag?
 22 A. Bodenstag.
 23 Q. Bodenstag.
 24 A. I am not certain who is in charge or
 25 whether they are partners or what, but they

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1 certainly have a business relationship.
 2 Q. Do you know what the System Source
 3 responsibilities are?
 4 A. Well, the part that I know about was
 5 that they were expert at the network communications
 6 on the AS/400.
 7 Q. Do you know if anyone else at Acres,
 8 other than Mr. Waldner, worked on the Bodenstag
 9 Interface Program?
 10 A. With the exception of that couple
 11 days with me, I don't believe anybody else did.
 12 Q. Do you know when Mr. Waldner first
 13 worked on the Bodenstag Interface Program?
 14 A. It would probably be October 1998.
 15 Q. I don't believe I have asked you the
 16 basic question. What is the role of the Bodenstag
 17 portion of the system?
 18 MR. RIEDINGER: Objection. Assumes
 19 there is one system. Facts not testified to.
 20 THE WITNESS: The Bodenstag software
 21 creates the player cards, enrolls players, tracks
 22 their play, and handles all reporting. Anything to
 23 do with player tracking.
 24 BY MR. DOWELL:
 25 Q. What is player tracking?

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1 A. Casinos in Las Vegas offer what is
2 known as a slot club. In this slot club, they
3 generally give out what is referred to as a player
4 tracking card, which usually these days is a
5 magnetic card with a number encoded on it.
6 Players when they play insert this
7 card into the machine they are playing, and their
8 play is recorded. And based on how much play they
9 record on that card, they get various bonuses or
10 benefits or free nights in the hotel, whatever.
11 Q. Are there any advantages to the
12 casino in keeping track of these people in the slot
13 club?
14 A. It's a marketing issue. I assume,
15 since almost all the casinos have it, that they
16 think it's a good thing.
17 Q. Can you explain why that is a good
18 thing?
19 A. I am not a marketing expert, and
20 personally, I don't gamble. They give you some of
21 the money you lose back? It doesn't make much
22 sense to me.
23 Q. Is one of the functions of the
24 Bodenstab software to keep a database of players
25 that play the slot machines?

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1 A. I think the only way to track the
2 play is have a list of them.
3 Q. You said the Bodenstab software
4 creates the player cards.
5 What are the player cards?
6 A. The player cards are plastic Track 2
7 magnetic cards, similar in shape and size to a Visa
8 card, with the player's name embossed on it that he
9 uses when he plays in the casino.
10 Q. How does one use the card when in
11 play? How does that work? Could you describe
12 that?
13 A. At any time when you're in front of a
14 slot machine, you can slide your card into the card
15 reader, at which point it will indicate that it has
16 read your card. It generally will tell you some
17 sort of information, like your name or something,
18 and at that point, all of your play is recorded for
19 presumably later benefits.
20 Q. You said the Bodenstab software
21 creates these player cards?
22 A. Yes.
23 Q. The card reader, who is responsible
24 for implementing the card reader in a gaming
25 system?

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1 A. The card readers -- well, there's
2 various card readers all around the casino.
3 The card readers that are in the slot
4 machine were created by Acres.
5 Q. Looking at the Mandalay Bay
6 installation, Acres sold the card readers to
7 Mandalay Bay for installation on slot machines?
8 A. I don't know the financial details.
9 Q. You know that Acres is responsible
10 for selling the card reader portion?
11 A. We built the card reader portion.
12 Q. How does Acres go about enabling the
13 card readers to read the cards created by the
14 Bodenstab system?
15 A. Very similar to the way it does with
16 the IGT system.
17 The Bodenstab system sends a list of
18 what to expect, a list of good cards that it has
19 created.
20 When we see a card that it has told
21 us about, we then send it a message that says we
22 saw it.
23 Q. When you are saying, "we," who are
24 you referring to?
25 A. I mean Acres. At the time I was

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1 working on it.
2 Q. Okay. I just want to make that
3 clear.
4 So when the Acres system sees a card
5 that the Bodenstab software has told the Acres
6 system is valid, then the card is recognized?
7 A. Yes.
8 Q. Can you describe, in as layman-like
9 terms as you can, how the Acres card reader reads a
10 card?
11 A. The card readers are, you know, off
12 the shelf, commonly available technology. It's the
13 same sort of card reader that's found in a gas pump
14 or any credit card application.
15 When you swipe the card or insert the
16 card through the reader, electrical signals are
17 generated that correspond to magnetized regions on
18 the card, and those signals are then sent up to the
19 system.
20 Q. And then, is it accurate to say that
21 that signal is sent through the Acres system to the
22 Bodenstab software?
23 A. Yeah. In all cases.
24 For instance, with using the IGT
25 player tracking system, it would be sent through to

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1 the IGT side. Whatever is on the back end, it gets
 2 sent through.
 3 Q. Does the card reader do any kind of
 4 translation or manipulation of the data that it
 5 gets off the card?
 6 A. The card reader itself is a very
 7 simple device with three wires coming out of it.
 8 It has no intelligence.
 9 Q. Is there any firmware on the card
 10 reader?
 11 A. Not on the card reader usually, but,
 12 you know, in the slot machine, the player tracking
 13 portion, which we could call a SMIB, the slot
 14 machine interface board. This would be equivalent
 15 to the Acres BE 2 or the CDS Sentinel. Interprets
 16 the electrical signals from the card reader.
 17 Q. How does it interpret the card
 18 reader?
 19 I guess, in my mind, I can envision a
 20 device that would just pass the data along and
 21 another kind that would do some manipulation of the
 22 data.
 23 Is one of those more accurate than
 24 the other?
 25 A. Yes.

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1 MR. RIEDINGER: Objection. Compound.
 2 THE WITNESS: Yes, certainly
 3 compound.
 4 BY MR. DOWELL:
 5 Q. You can answer.
 6 A. The Track 2 format is used in many
 7 industries other than gaming, and there's a
 8 standard way of interpreting the magnetic 1's and
 9 zeroes that are on the card, the positive and
 10 negative region.
 11 This standard interpretation involves
 12 converting them to numbers between 0 and 9.
 13 Q. So the SMIB converts the signal from
 14 the card reader into numbers between zero and 9?
 15 A. Yes. The SMIB puts out in the Acres
 16 system a 20-digit number.
 17 Q. Is that standard, for the SMIB to put
 18 out a 20-digit number?
 19 A. I don't believe there are any
 20 standards with SMIBs, but if you buy card readers
 21 from companies that make such devices and you swipe
 22 cards in them, they also create the same 20-digit
 23 number. It's variable length. It could be less
 24 than 20 digits.
 25 Q. Is there a standardized format that

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1 leads to this 20-digit number?
 2 A. Yes.
 3 Q. Could you --
 4 A. It's the Track 2 format. The Track 2
 5 format, which is what these card readers are
 6 designed to read, basically explains or describes
 7 what sort of magnetic patterns get turned into what
 8 numbers.
 9 Q. What is the source of the Track 2
 10 format? Is that an industry standard of some sort?
 11 A. It's more than just one industry
 12 standard. It's sort of standard in the world.
 13 There are -- basically, on the back
 14 of a magnetic card, there are basically three
 15 tracks. And these tracks are different physical
 16 locations on the black magnetic stripe.
 17 And the people that make these cards
 18 have developed standards as to how to encode and
 19 decode them.
 20 Q. So the Track 2 format is what is on
 21 the card, then, right?
 22 A. Well, it's what is on the card and
 23 what the reader is designed to read.
 24 Q. Does the Track 2 format have anything
 25 to do with the SMIB?

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1 A. No. I mean, the Track 2 is used in
 2 many locations in other nongaming applications.
 3 Q. So the SMIB is developed to
 4 understand the Track 2 format?
 5 A. Yes.
 6 Q. There is firmware, then, in the SMIB
 7 that converts the signal from the card into a
 8 20-digit number?
 9 A. In the Acres system, that's what
 10 happens.
 11 Q. Are you familiar with the CDS system
 12 and what it does in that respect?
 13 A. Yes.
 14 Q. What does that do?
 15 A. Is this something I should answer
 16 with Acres people present?
 17 Q. They are all under confidentiality
 18 orders and agreements, so we can answer that with
 19 counsel.
 20 A. The CDS Sentinel is more
 21 complicated. It reads in the numbers and then
 22 applies an algorithm to them to determine if
 23 they're good or bad, and then, it compresses those
 24 numbers down to five bytes.
 25 MR. DOWELL: I guess I should ask.

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1 Jerry, I am not as familiar with the personalities
2 in the case. We all are safe to hear this
3 information?

4 MR. RIEDINGER: It depends on what
5 level of confidentiality that we designate it on.
6 I mean, I am covered with all levels of
7 confidentiality. Mr. Haynes is covered with
8 confidential but not highly confidential.

9 MR. DOWELL: I think we are getting
10 into highly confidential subject matter here that
11 we would end up designating on the transcript as
12 highly confidential.

13 So if we could, if Mr. Haynes could
14 step outside when we discuss this, we'd appreciate
15 it.

16 MR. RIEDINGER: As an alternative, he
17 can agree to discuss the information only with
18 outside counsel and no one else.

19 MR. DOWELL: We can handle that.

20 I guess I will state on the record
21 that we had, I think -- the concern about in-house
22 counsel receiving highly confidential material led
23 to the structure of the protective order as it is,
24 and without waiving or making any kind of implied
25 statements about other highly confidential

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1 information, I think for the purposes of the
2 information that I anticipate Mr. Dempsey will
3 provide, I think that will work, and as long as
4 there is that limitation on it.

5 MR. RIEDINGER: Okay.

6 MR. DOWELL: So we can agree to
7 that.

8 BY MR. DOWELL:

9 Q. Mr. Dempsey, you said the CDS
10 Sentinel is more complicated and that it reads in
11 the numbers from the card reader and then applies
12 an algorithm to determine if it is good or bad, and
13 then, it compresses the numbers down to five bytes?

14 A. Yes.

15 Q. Does anything similar go on -- let
16 me back up.

17 Does that occur at the slot machine
18 in the CDS system?

19 A. In the CDS system, that occurs in the
20 Sentinel, which is their SMIB. It's a small
21 computer that goes in the slot machine.

22 Q. So each one of the slot machines has
23 those things?

24 A. That's correct.

25 Q. There is a corresponding thing,

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1 then -- by "corresponding," I don't mean it does
2 the same thing, but something similar to that in
3 the Acres devices?

4 A. There is a SMIB, a slot machine
5 interface board, that is a small computer in each
6 slot machine in the Acres system as well.

7 Q. The SMIB on the Acres SMIB, then,
8 doesn't do this algorithm?

9 A. The SMIB firmware was designed up in
10 Corvallis, and I have never seen it and am not
11 familiar with it.

12 But it's my understanding there is
13 nothing anywhere close to that in there. It just
14 passes the number up unchanged.

15 Q. Do you know who at Acres was
16 responsible for designing the SMIB firmware?

17 A. I don't know who designed it. It was
18 designed before I got there. I know if I had a
19 question, Mark Daley would probably be a very smart
20 person who could answer, but I don't know his exact
21 history.

22 Q. What did you mean that the CDS
23 Sentinel reads in the numbers and then determines
24 if they are good or bad?

25 A. Again, just to make it clear, there's

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1 nothing I can say here that would cause me a
2 problem with CDS as far as confidentiality goes?

3 Q. No.

4 A. Okay.

5 Q. And just to explain, we are all bound
6 to keep it confidential as well. So it only goes
7 to us and for use in court. It doesn't go to
8 people at CDS, anyway.

9 A. The CDS Sentinel, when it reads in a
10 number, can determine two things, and the first
11 thing is: Does the number match a certain
12 mathematical algorithm. If it doesn't match this
13 algorithm, the Sentinel immediately knows that it's
14 an invalid card.

15 If it does detect that it's a valid
16 card, based on this algorithm, the next thing it
17 checks is a field in the card number to determine
18 which site the card is used at, and it will reject
19 cards that aren't set for the correct property,
20 such that, say, Circus cards would not work at
21 Stations or some other customer.

22 Q. Does the Acres Gaming system, not
23 limited to the SMIB, also have those same two
24 benefits?

25 A. Acres uses an employee card, which is

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1 not related to player tracking. And in the Acres
2 system, you can determine, you know, if an employee
3 card is valid or not, again, by doing a lookup into
4 a database table.

5 But the player tracking side of the
6 Acres system doesn't have any concept of a site or
7 any kind of checksum or check.

8 Q. How does the Acres system determine
9 if you have got the right card for the right
10 property, that you can't use a Circus Circus card
11 at the Hard Rock?

12 MR. RIEDINGER: Objection. Assumes
13 facts not testified to.

14 BY MR. DOWELL:

15 Q. Does the Acres system determine if
16 you have the right card for the right property?

17 A. The Acres system looks in a table, a
18 list of valid cards. If the card is in that list,
19 it's accepted. If it's not in that list, it is
20 not.

21 Q. How does it check the list?

22 A. The list is stored in the SQL
23 database, and the information is added to that
24 database by the BIF program, which it receives from
25 presumably some foreign player tracking system.

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1 Q. In Mandalay Bay, it's the Bodenstab
2 system?

3 A. Yes.

4 Q. So there is a list on the Bodenstab
5 system, and there is a list on the SQL database?

6 A. I am not an expert on the Bodenstab
7 system, but as we discussed, they must have some
8 kind of player list.

9 On the Acres system, what we do is
10 have a list of valid cards. It doesn't -- we
11 don't actually have the same information or
12 detailed information, but we have enough for our
13 purposes to determine if this number that we've
14 read off the magnetic stripe is valid or invalid.

15 Q. But that verification process is not
16 done at the slot machine on an Acres Gaming
17 machine?

18 A. There are no checks at the slot
19 machines. The slot machine just reads the Track 2
20 information and sends it upwards.

21 Q. Now, the code -- there is a list on
22 the SQL database of players, I assume, correct, or
23 some kind of a number identifier?

24 A. Cards.

25 Q. We talked earlier about the SMB in

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1 the Acres devices sending a 20-digit number
2 onward.

3 Does that 20-digit number represent a
4 card?

5 A. I probably should actually be pretty
6 specific here.

7 The Track 2 format, with a partial
8 insertion card reader of the kind that most of the
9 casinos use, has enough room to read 20 digits.
10 But the Track 2 format is variable length, so that
11 when you run a card through a Track 2 card reader,
12 if it is encoded, you will get some number that may
13 be up to 20 digits long.

14 MR. DOWELL: I think we have run over
15 a little bit. Why don't we take a five-minute
16 break and then come back.

17 MR. RIEDINGER: Okay.

18 (There was a recess taken.)

19 BY MR. DOWELL:

20 Q. Before the break, we were talking
21 about the Track 2 format and the 20-digit number.

22 How would you refer to this 20-digit
23 number? What is that?

24 A. It is a record of what is encoded on
25 the magnetic stripe. A representation of what is

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1 encoded on the magnetic stripe.

2 Q. Is the 20-digit number stored in the
3 Bodenstab software, to your knowledge?

4 A. I'm sure he uses it in his system.
5 I don't know if he stores it in that format or
6 converts it to something else, but we send it to
7 him in that format.

8 Q. It is sent from the BIF --

9 A. The BIF program, right.

10 Q. Now, is there anywhere in the -- do
11 you know if the 20-digit number is ever converted
12 to a shorter number?

13 A. In the Acres system, it isn't.

14 Q. I take it, in the CDS system, it is?

15 A. CDS never actually sends the 20-digit
16 numbers anywhere. They convert it to this
17 five-byte pact format.

18 Q. What is a five-byte pact?

19 A. The 20-digit number is 20 decimals,
20 zero through 9, and in a computer, each one of
21 those digits takes up eight bits of space. Given
22 eight bits of space, rather than just using it for
23 zero through 9, it turns out that there are 256
24 choices you can make. So using the same space that
25 it would take to store five decimal digits, you can

1 store an incredibly large number by making it
 2 nonprintable, binary. And so, CDS does this.
 3 Q. Where is that done on the CDS system?
 4 A. In the Sentinel.
 5 Q. At each gaming device?
 6 A. At each gaming device. And that
 7 number is then used throughout the rest of the
 8 system.
 9 Q. I understand decimal. Is there a
 10 reference when you use the -- is that binary?
 11 A. This would be binary.
 12 Q. So nowhere in the Acres system does
 13 it use a binary representation of that 20-digit
 14 number?
 15 A. That's correct.
 16 Actually, I believe, in some
 17 cases -- I don't think it's ever stored that way
 18 in the database, but in the floor hardware, I think
 19 it's actually sent up as ten bytes.
 20 Q. What system are we talking about?
 21 A. Coming up from the Acres hardware to
 22 the translator, I think, in some cases, it is
 23 shortened from 20 down to 10.
 24 Q. Oh, it is? How is that done?
 25 A. It uses something called a packed BCD

1 format where you take two numbers and shrink them
 2 into one and then unpack them later.
 3 And again, in one byte of binary, you
 4 have a choice of up to 255. Again, with decimal,
 5 we're using 1 through 10. It turns out that with
 6 two digits of decimal, you have zero through a
 7 hundred. So it's very easy to take zero through
 8 10, take two of them, you get zero through a
 9 hundred and then later put them back.
 10 The SQL database doesn't have a way
 11 to store that sort of number, you know, and the
 12 20-digit number is what goes into the back of the
 13 system.
 14 Q. The SQL database doesn't have a way
 15 to store the shortened number. Is that what you
 16 are saying?
 17 A. That's correct.
 18 Q. It does have a way to store the
 19 20-digit number?
 20 A. That's correct. Did I say it
 21 backwards?
 22 Q. No. You said it. I just wanted to
 23 make sure I understood.
 24 Where on the Acres system is the
 25 20-digit number scrunched to a 10-digit number?

1 A. If it's scrunched, it's scrunched in
 2 the firmware and the communications wires.
 3 Q. The firmware?
 4 A. Out at the slot machine. Again, the
 5 part I didn't do.
 6 Q. At the gaming device?
 7 A. Yeah.
 8 Q. You said, "If it's scrunched."
 9 I mean, do you know for a fact that it's scrunched
 10 there?
 11 A. I've never seen the firmware code.
 12 I didn't work on it. But I have indications from
 13 the translator that they scrunch it.
 14 Q. Does the translator work with this
 15 10-digit number? And that is the scrunched number
 16 I guess we've been referring to here.
 17 A. If it gets one, it just unpacks it to
 18 20.
 19 Q. So does it always get a 10-digit
 20 number from the gaming devices?
 21 A. You know, I almost forgot about that
 22 10 -- well, it's a 10 byte.
 23 Q. 10 byte?
 24 A. 10 byte to 20 digit. That's the way
 25 it gets converted.

1 Q. Okay.
 2 A. You know, I almost forgot about that
 3 10-byte representation, and you know, I'm a little
 4 vague on it. But I think that they come in that
 5 way over the network, and it unpacks, the first
 6 thing it does.
 7 What happens is that any -- this is
 8 a common, industrywide thing that's actually
 9 falling out of favor but was popular 10 or 20 years
 10 ago, and it was a way to save space by scrunching
 11 the numbers this way.
 12 With modern computers, it's pretty
 13 much unnecessary.
 14 Q. Because of all the extra memory and
 15 the value of storage isn't as high as it used to
 16 be?
 17 A. Right.
 18 Q. So the SMIB at the Acres device must
 19 then convert the 20-digit -- it is not outputting
 20 a 20-digit number; it is outputting a 10-byte
 21 number?
 22 A. I think it's doing a 10-byte number,
 23 that's right. You know, effectively, they're the
 24 same. It's a simple one-to-one mapping.
 25 Q. The 10-byte number, I couldn't look

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1 at this 10-byte number and have any comprehension
2 of what it is, correct?

3 A. Actually, you could.

4 If you take a look at a hexadecimal
5 digit, which in the C language, or people usually
6 write with an X in front of it, it turns out if you
7 had a decimal number, 1, 2, 3, 4, 5, and you looked
8 at the Hex representation of it, it would be 31,
9 32, 33, 34, 35 because all numbers start with a 3,
10 and the last digit is the same as the number.

11 Whereas, the packed representation of
12 that, if you looked at it in Hex would be 1, 2 for
13 the first byte, 3, 4 for the next byte, and then 5
14 in the third byte.

15 So just looking at it in Hex, you can
16 actually see very easily what is going on.

17 Q. Did you testify earlier that the SMIB
18 didn't do any type of conversion of the number?

19 A. That's correct.

20 I don't really consider this a
21 conversion. You know, it's just a shortening of
22 the same thing.

23 Q. Is there any kind of conversion of
24 the 20-digit number in the Acres system to a
25 10-digit decimal number or 10 or 8 or a smarter

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1 number that is represented on player cards?

2 A. No.

3 Q. Do the cards that are used at
4 Mandalay Bay have a number on them?

5 A. The cards at Mandalay Bay have a --
6 of course, the magnetic stripe that has, again, up
7 to 20 digits on it.

8 On the front of them, I believe they
9 have an 8- or a 9-digit decimal number, which I
10 think is the account number or what some like
11 Bodenshtab might consider the account number.

12 As a modification of the system, it
13 wasn't installed originally on March 2nd, but on
14 some of our monitoring devices, we were showing
15 these 20-digit numbers, which didn't match what the
16 people in the casino were used to, and they asked
17 us if we could show the number on the front of the
18 card.

19 And so, we asked Mr. Bodenshtab, when
20 he sent us the list of good cards, to also send us
21 whatever was on the front of the card, and he did
22 that.

23 And I don't know for a fact that
24 that's been installed because I left Acres, but I
25 think it is. And that's for visual purposes.

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1 Q. What is the relationship between the
2 20-digit number and the 8-digit account number?

3 A. Well, I am not real certain.

4 Now, based on my knowledge at CDS, I
5 think if you run it through the algorithm, you can
6 turn the 18-digit number into the 8-digit number.
7 But that algorithm is relatively complicated, and
8 you know, I can't do it on paper. I mean, it would
9 take me a couple hours to try and determine if that
10 were true.

11 Q. So there was an algorithm at CDS that
12 made this conversion from a 20-digit to a -- what
13 is that, an 8-digit decimal number?

14 A. There was an algorithm at CDS that
15 broke it up, and I think one of the pieces was this
16 8-digit number. Another piece might have been the
17 site, I think.

18 Q. So this is in the Sentinel in each of
19 the devices on a CDS system that is doing this?

20 A. Well, the CDS system, the 5-byte
21 thing that we talked about, this real compressed
22 form, I think has the 8-digit number in there, and
23 it also, I think, has the site in there.

24 Again, there's another little
25 algorithm that breaks that out.

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1 Q. Once it has this 5-byte number, it
2 can pull the 8-digit number out --

3 A. Exactly.

4 Q. -- and put it wherever it wants?

5 A. I believe, again, from my memory now,
6 that four of the five bytes correspond to this
7 8-digit number. So you just skip the one, and the
8 others are there.

9 Q. Does the Acres run anywhere an
10 algorithm that converts from the 20-digit number to
11 an 8-digit account number?

12 A. No. So far as I know, you know, that
13 process is CDS proprietary, and Acres doesn't have
14 it encoded in any of their software. Certainly,
15 none of the software that I was responsible for or
16 I'm aware of.

17 Q. So based on your understanding, then,
18 Acres gets access to both a 20-digit number and an
19 8-digit number by receiving both from the Bodenshtab
20 software?

21 A. Yes.

22 Q. That is an accurate statement of your
23 understanding?

24 A. That certainly is.

25 And again, the original system just

1 got the one, but it was changed to get the other
 2 for display purposes.
 3 Q. Why was it changed for display
 4 purposes?
 5 A. We have a program called -- it's
 6 basically a monitoring program that shows, for
 7 instance, which cards are in or out of a machine,
 8 and we were originally showing the 20-digit number,
 9 which works just fine for us.
 10 However, the customer said, "We would
 11 prefer to see the number that is on the front of
 12 the card which we can look at rather than what is
 13 encoded on the mag stripe."
 14 And so, we have no way of knowing
 15 what is encoded on the front of the card unless the
 16 player tracking system tells us. So we asked Tom
 17 to send it to us, and he was happy to.
 18 Q. When you say, "send it to us,"
 19 meaning send it to us instantaneously all the time
 20 on the system?
 21 A. No. What happens is that we talked
 22 about this cash, this list of good cards, and we
 23 said, you know, for each good card, please add in
 24 whatever the display number that we should show.
 25 ///

1 (Exhibit 308 was marked for
 2 identification.)
 3 BY MR. DOWELL:
 4 Q. Mr. Dempsey, I am going to mark as
 5 Exhibit 308 a document titled "Statement of Martin
 6 Dempsey."
 7 I want to ask you some questions
 8 about this, but before I do, could you describe
 9 what you did to prepare for your testimony today?
 10 A. Well, I hate to admit it, but this
 11 morning, I got up very early and started looking
 12 for documents.
 13 Pretty much nothing. I mean, I read
 14 through this statement. I have a copy of it in one
 15 of the documents I provided to you. Tried to, you
 16 know, refresh my memory about this.
 17 But I talked to my attorney
 18 regarding, you know, deposition procedures, again
 19 to refresh myself in such.
 20 Q. Outside of the phone conversation you
 21 and I had last week where I will represent that I
 22 asked basically if you would be showing up -- I
 23 should clarify for the record.
 24 Did we really discuss anything other
 25 than that?

1 A. I don't recall anything.
 2 Q. Have you had any contact with counsel
 3 for Acres?
 4 A. I've talked to Jerry Haynes at least
 5 once, I think once, and I've talked to, excuse me,
 6 Jerry Riedinger?
 7 MR. RIEDINGER: Riedinger, but
 8 everybody gets it wrong. Don't worry about it.
 9 THE WITNESS: Riedinger as well.
 10 BY MR. DOWELL:
 11 Q. When did you have a conversation with
 12 Mr. Haynes?
 13 A. The first thing I did after I was
 14 subpoenaed -- actually, I think I was subpoenaed
 15 on a Sunday, well, Monday during working hours, I
 16 called him up Monday to let him know that I was
 17 subpoenaed.
 18 Q. What was his reaction?
 19 A. He already knew, of course.
 20 Q. What did you discuss with Mr. Haynes
 21 at that time?
 22 A. I don't believe we had a real
 23 substantive conversation at that point. It was
 24 probably a five-minute phone call,
 25 five-or-ten-minute.

1 Q. Did you discuss the subject matter of
 2 what you might be asked about under the subpoena?
 3 A. Oh, yes. I was very interested to
 4 try and find out, you know, whether this was going
 5 to be a short, little, you know, deposition or
 6 whether I was going to be in for days.
 7 Q. What were you told?
 8 A. He told me pretty much expect a full
 9 day.
 10 Q. What else did he tell you?
 11 A. He said that there had been other
 12 depositions in the case. It was moving forward.
 13 Q. Did he tell you anything about the
 14 trade secret claim that CDS had made?
 15 A. No. I did see a copy before I left
 16 Acres of at least part of this complaint. I don't
 17 know which part.
 18 Q. Was there any discussion with
 19 Mr. Haynes about what types of matters we would be
 20 interested in, counsel for CDS, in asking you
 21 about?
 22 A. He assured me that we would probably
 23 be discussing this statement.
 24 Q. Anything else?
 25 A. Not that I recall?

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1 Q. How about your conversation with
 2 Mr. Riedinger?
 3 A. Riedinger?
 4 MR. DOWELL: Riedinger?
 5 MR. RIEDINGER: Riedinger.
 6 BY MR. DOWELL:
 7 Q. What did you discuss with
 8 Mr. Riedinger?
 9 A. I was, again, interested to know what
 10 would be happening at the deposition, and he gave
 11 me a broad overview and again told me that we would
 12 most likely be discussing this statement and my
 13 history, whatever I had done at Acres, whatever I
 14 had done at CDS.
 15 Q. Did he discuss the trade secret claim
 16 that CDS had made against Acres?
 17 A. I don't know. I mean, about the card
 18 format thing?
 19 Q. Right.
 20 A. No. That was -- I knew that existed
 21 because of the complaint, but we didn't discuss it.
 22 Q. How long was that conversation?
 23 A. On the phone, I think, what, five
 24 minutes? Maybe less. A couple minutes.
 25 Q. Did you have any discussions with any

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1 other employees or representatives of Acres about
 2 the deposition?
 3 A. Rich Schneider called me. It was
 4 basically on some other matters, but I think we
 5 discussed the deposition as well.
 6 Q. What did you discuss with
 7 Mr. Schneider?
 8 A. I think he commiserated with me that
 9 I was going to waste a day.
 10 Q. What else?
 11 A. That was about it. I mean, again,
 12 this is a pretty simple issue from my point of
 13 view.
 14 Q. What is a very simple issue?
 15 A. Well, the way the system works, the
 16 way the Acres system works, the way the CDS works,
 17 you know, is pretty obvious and straightforward.
 18 Even from the source code, this shouldn't take too
 19 long to figure out.
 20 Q. What shouldn't take too long to
 21 figure out?
 22 A. As to whether the algorithm that CDS
 23 has used is anywhere in Acres' software. Just look
 24 at the source code. It's there or it's not.
 25 Q. What algorithm? You said just use

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1 "the algorithm that CDS has used." What algorithm
 2 are you referring to?
 3 A. Well, again, I don't know what CDS is
 4 actually suing for, but what I think it is is the
 5 algorithm that Jay Stone came up for optical cards
 6 that converts between the five bytes available on
 7 optical cards and a compatible format on magnetic
 8 cards.
 9 Q. How did you reach the understanding
 10 that this was what CDS was suing about?
 11 A. Looking at approximately one page of
 12 the complaint where it mentioned "card format,"
 13 something about "card format." That seemed to be
 14 what it was.
 15 Q. You testified that the Acres system
 16 interfaces with the Bodentab software through the
 17 BIF?
 18 A. The BIF program, yes, that's correct.
 19 Q. Is there a corollary interface in the
 20 CDS system?
 21 A. I don't understand the question. You
 22 mean between CDS and what?
 23 Q. Is there a corollary interface
 24 between the CDS system and the Bodentab software
 25 that CDS uses?

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1 A. I don't know. I never saw that
 2 system. I'm not familiar with that.
 3 Q. What were the circumstances of your
 4 completing this statement of Martin Dempsey that we
 5 have marked as Exhibit 308?
 6 A. Having seen the complaint, I think
 7 relatively soon -- or, this section of the
 8 complaint that dealt with that algorithm relatively
 9 soon, I think, after CDS created it, I looked it
 10 over to see, if, in fact, potentially could I have
 11 done anything wrong and very quickly came to the
 12 conclusion that, you know, everything that we did
 13 at Acres was absolutely aboveboard and
 14 straightforward.
 15 At that point, I had already
 16 indicated to Mr. Haynes that I was leaving Acres,
 17 leaving the employment of Acres, and he suggested
 18 if I completed a statement to that effect, that I
 19 felt that everything was, you know, on the
 20 up-and-up, that it would help Acres and asked me to
 21 do it. And I happily complied.
 22 Q. So Mr. Haynes suggested that you
 23 should complete this statement?
 24 A. That's correct.
 25 Unfortunately, it didn't get me out

1 of this deposition.

2 Q. And so, this statement was provided
3 to Mr. Haynes, what, sometime around May 7th, 1999?

4 A. I think that I probably pretty much
5 completed it on maybe May 5th and took a day or so
6 to check it over and make edits and finish signing
7 it on the 7th.

8 Q. Looking at page 2, paragraph 11, it
9 says:

10 "About three or four weeks
11 after Mandalay Bay opened, the
12 management of Mandalay Bay
13 asked whether the Acres system
14 could display to the casino
15 operators the 8-digit account
16 number embossed on the front of
17 a player tracking card when a
18 player inserts the card in a
19 gaming device."
20 Is that the incentive for making the
21 change to the Acres system, to get an additional
22 8-number code from the Bodenstab software that we
23 talked about earlier?

24 A. Yes. It's my understanding it was a
25 client request.

1 Q. How did you hear about this client
2 request?

3 A. Perry Waldner is the head player
4 tracking guy, and he was -- at that point, after
5 Mandalay Bay opened, he was going over to Mandalay
6 Bay on pretty much a daily basis to make sure that
7 everything was running correctly.

8 And he came back, and that was one of
9 the feedback things he got from being over there,
10 that they didn't like the 20-digit number. They
11 wanted to see this other number.

12 Q. Did Mr. Waldner say --

13 A. Waldner.

14 Q. Did Mr. Waldner say why Mandalay Bay
15 wanted to see that?

16 A. We didn't discuss it in detail. It
17 seemed an obvious request.

18 Q. Why was it obvious?

19 A. Well, because the 20-digit numbers,
20 which is encoded on the mag stripe, is everything I
21 need as a computer person, but without a Track 2
22 card reader, it's very hard to see what that is.

23 As far as the average person walking
24 around on the floor of Mandalay Bay, if they wanted
25 to see a customer, the number when they physically

1 looked at a card with their eyes would be this
2 8-digit number.

3 So it seemed obvious that they would
4 like to see that rather than this other number they
5 didn't know about.

6 Q. Did Mr. Waldner say if the people at
7 Mandalay Bay wanted to see that 8-digit number
8 because CDS in its system could show the 8-digit
9 number?

10 A. He didn't actually mention that.

11 Q. Any mention of CDS by the people at
12 Mandalay Bay to Mr. Waldner, as far as you know?

13 A. Oh, that would be hearsay, but I
14 mean, not that I know of.

15 Q. So did you have a conversation with
16 Mr. Waldner after he came back from Mandalay Bay
17 about making this change to display the 8-digit
18 account number?

19 A. Yes. Perry worked in the next
20 cubicle over from me, so I talked with him
21 frequently.

22 And it turned out, in one particular
23 case, that my program had to be adjusted to send
24 this 8-digit number out.

25 And so, he asked me, in the packet,

1 the network packet that I was sending to the
2 software that displays this for the operator, that
3 I should get it out of this database field instead
4 of that one.

5 Q. How long after the time Mr. Waldner
6 talked to Mandalay Bay did you have this
7 conversation?

8 A. I think it probably took Acres a week
9 or so to implement it in our lab. So, I mean, I
10 would assume this all happened over, you know, a
11 very short period of time.

12 Q. In any conversation during this week
13 with Mr. Waldner, do you recall any mention of CDS
14 or the CDS system and its -- well, let me leave it
15 at that.

16 A. No. I mean, this was the Acres
17 system we were dealing with over there. I mean, I
18 don't think it hurt us that it mattered whether CDS
19 did it the same or different.

20 Q. Was there any mention at all of
21 whether CDS did it the same way?

22 A. No, not that I recall.

23 Q. Was there any discussion of the
24 fact -- of the point that you testified to earlier
25 that CDS uses this binary number rather than

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1 receiving the 8-digit number from the Bodenstag
 2 system?
 3 A. Could you just repeat that.
 4 Q. Yes. Let me try that again.
 5 A. Or rephrase it. Whatever you want to
 6 do.
 7 Q. After Mr. Waldner had talked to
 8 Mandalay Bay, and during the time that the 8-digit
 9 number was being implemented on the Acres system,
 10 was there any discussion of the algorithm that CDS
 11 used in its system?
 12 A. No.
 13 Q. Any discussion of using a binary
 14 number or doing any kind of conversion in the Acres
 15 system rather than receiving the 8-digit number
 16 from the Bodenstag software?
 17 A. Well, I mean, having worked at CDS, I
 18 know that such an algorithm exists on the CDS
 19 system, but I have no indication that Bodenstag is
 20 doing such a conversion.
 21 I don't know that you can take the
 22 20-digit number and turn it into the 8-digit
 23 number. They may be completely random, for all we
 24 know.
 25 And again, without me spending hours

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1 to try and reverse engineer it and see if I could
 2 remember what I did at CDS, I would have no way of
 3 knowing if there was a correspondence.
 4 So, you know, the easy thing to do
 5 was say: He puts the number on the front of the
 6 card, he obviously knows it. Just have him send it
 7 to us.
 8 Q. On paragraph 12 on page 3.
 9 A. Yes.
 10 Q. It says:
 11 "Sometime in 1998, Mr. Pat
 12 Powers of Acres gave me two CDS
 13 documents: Oasis- AS/400
 14 interface, dated September
 15 1996, and Engineering
 16 Specifications for the Oasis
 17 II - Bodenstag AS/400 interface
 18 dated June 29th, 1998."
 19 So Mr. Powers gave you these two
 20 documents sometime in 1998?
 21 A. That's correct.
 22 Q. So it would have been after you
 23 started at Acres in September '98?
 24 A. That's correct. Actually, I believe
 25 my start date technically was August 31st.

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1 Q. Did Mr. Powers, when he gave you
 2 these documents, say what he was giving them to you
 3 for?
 4 A. He gave me these documents along with
 5 a bunch of others, which was all sorts of player
 6 tracking sort of stuff. Stuff relating to how we
 7 did things with IGT, this CDS stuff, and stuff that
 8 he had developed on his own as to how he would want
 9 a player tracking interface to go.
 10 This was just before Mr. Waldner was
 11 hired and took over this responsibility, and he
 12 said, "You know, we've got to come up with a method
 13 to make our system, which currently doesn't do
 14 player tracking at all, talk to a player tracking
 15 system. And will any of this help?"
 16 Q. So what other type of stuff was in
 17 this information, especially the stuff relating to
 18 how you did things with IGT?
 19 A. For instance, one of the things that
 20 was documented in there was the messages that we
 21 got from the Acres SMIB, which we currently used
 22 with IGT that discussed, you know, how we
 23 calculated points, how -- all of these player
 24 tracking sort of things. What came up from the
 25 floor.

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1 And the idea was then to take that
 2 and pack it up in such a way and ship it off.
 3 Q. What did the CDS documents show
 4 relative to the work that was being done?
 5 A. Obviously, in computers, everyone
 6 tries to avoid doing useless extra work, and if I
 7 had an interface, if I was Mr. Bodenstag and had an
 8 interface to CDS, and I was going to interface to
 9 other player tracking systems, I would hope they
 10 all used the same interface rather than, you know,
 11 having to develop six copies.
 12 And so, I assumed that Mr. Bodenstag
 13 probably wanted us to do it the way that he already
 14 did it, but I didn't like the way it was done.
 15 Q. You didn't like the way what was
 16 done?
 17 A. In this Bodenstag interface that
 18 apparently existed, that was documented in these
 19 documents, there were what I felt were weaknesses
 20 that would make it unsuitable for our use as an
 21 interface.
 22 MR. DOWELL: I see we are at 5 after
 23 12:00. Why don't we break for lunch.
 24 (A luncheon recess was taken
 25 from 12:05 p.m. to 12:53 p.m.)

1 EXAMINATION (RESUMED)
 2 BY MR. DOWELL:
 3 Q. Mr. Dempsey, before the break, we
 4 were talking about the way the Bodenstab software
 5 interfaced with a system, and you said, "If I was
 6 Mr. Bodenstab and had an interface to CDS and I was
 7 going to interface to other player tracking
 8 systems, I would hope they all used the same
 9 interface rather than, you know, having to develop
 10 six copies."
 11 Based on that, you assumed,
 12 "Mr. Bodenstab probably wanted us to do it the way
 13 that he had already done."
 14 Is that correct?
 15 A. Yes.
 16 Q. Was there any indication, other than
 17 your assumption, that Mr. Bodenstab wanted you to
 18 use the same interface to his software module,
 19 based on statements you heard from someone else or
 20 any other resource?
 21 A. I didn't speak to Tom about this
 22 directly, but the reason that I said that is that I
 23 got that feeling from Pat that, you know, Pat knew
 24 we were supposed to have this done in a short
 25 period of time and felt that there would be

1 pressure to not reinvent the wheel, to use what was
 2 there.
 3 I don't know why he felt that way.
 4 You know, we didn't discuss it in detail.
 5 Q. When you say, "why he felt that way,"
 6 meaning why you should use the same interface that
 7 had been used before?
 8 A. No. Whether he felt there would be
 9 pressure, whether it was from Tom directly or from
 10 his bosses to get it done in a hurry or what.
 11 Q. You didn't know what the source of
 12 the pressure was to get it done in a hurry?
 13 A. Well, I knew the source of the
 14 pressure. The casino was opening on May --
 15 March 2nd. So in order to get things submitted to
 16 Gaming and in time be tested in a trial test bed
 17 and be approved before March 2nd, of course, there
 18 was pressure to get everything done in a hurry.
 19 But I don't know what specifically in
 20 terms of the player tracking, what the deadlines
 21 and stuff that, you know, he got from his
 22 superiors.
 23 Q. You came on right around the first of
 24 September with Acres.
 25 A. Yeah.

1 Q. So it was sometime after that that
 2 you began having these discussions with Mr. Powers
 3 about the interface with the Bodenstab software?
 4 A. At that time, we didn't know it was
 5 going to be the Bodenstab software.
 6 When he first talked to me about it,
 7 we knew we were going to have an interface to some
 8 player tracking system and that Circus would be
 9 choosing someone to do the player tracking part of
 10 it. And it wasn't us.
 11 So the first couple meetings
 12 regarding player tracking, it was, you know, we're
 13 going to need some kind of generic interface, you
 14 know, just make the player tracking basics such
 15 that we can hook to whomever Circus chooses. And
 16 then, over time, Circus apparently chose
 17 Mr. Bodenstab.
 18 Q. Do you know when that occurred?
 19 A. You know, I don't.
 20 I will say that I think the contract
 21 was signed very late. That would be something you
 22 should talk to Tom about.
 23 Q. Tom Bodenstab?
 24 A. Yeah.
 25 Q. From the time that Acres was notified

1 that Circus Circus had selected the Bodenstab
 2 software, it was a relatively short period until
 3 Acres had to get the interface up and running to
 4 that software, correct?
 5 A. Yeah.
 6 Q. And so, there were time pressures
 7 because the Mandalay Bay casino was opening?
 8 A. That's correct.
 9 Q. Just to clarify for the record,
 10 Circus Circus is the parent company for Mandalay
 11 Bay?
 12 A. That's correct. Actually, I believe
 13 they might have changed their name, but Circus
 14 Circus is what they were known as at the time.
 15 Q. So when you say Circus Circus was
 16 making the selection about Bodenstab, you are
 17 referring to the company that was running Mandalay
 18 Bay?
 19 A. Yes. It was my understanding that
 20 the owners of Mandalay Bay who choose who they
 21 wished to use.
 22 Q. What other options did they have for
 23 player tracking software?
 24 A. Well, one of them that I guess they
 25 chose not to use, the original one was IGT. The

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1 Acres system originally was designed to use IGT was
2 the player tracking back end software, and I guess
3 that, for whatever reason, they chose not to do
4 that.

5 Q. Did you ever hear, from any source,
6 why Circus Circus chose the Bodenstag software for
7 its player tracking capabilities?

8 A. No.

9 Q. No one at Acres ever discussed why
10 that was selected versus the IGT system?

11 A. I remember hearing that they were
12 unhappy with IGT, but again, this is high-level
13 finance, management negotiations above my -- above
14 my place.

15 Q. You remember hearing that who had
16 discussed that?

17 A. Oh, I think that -- when I'm talking
18 about these things that happened in management, I
19 would be hearing these from Pat. You know, and Pat
20 would have probably said to me something, and I am
21 going to say as close as I can remember, something
22 like, "Circus doesn't want to use IGT."

23 Q. Did he ever say why they didn't want
24 to use IGT?

25 A. I think they just didn't like them,

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1 but I mean, I don't --

2 Q. The function or the personalities?

3 A. I think all.

4 Q. Did you ever hear -- you mentioned
5 earlier about something being hearsay. We
6 understand that, and we will deal with that as
7 necessary.

8 Did you ever hear about any of the
9 functions about the IGT system that Circus Circus
10 didn't like?

11 A. No. You know, at the time I was
12 there, the decision to not use it was done.
13 I mean, you know, Pat was developing this as a
14 replacement. So, I mean, that wasn't something we
15 talked about.

16 Q. Did you ever make a recommendation or
17 have a conversation -- let me stick with that.

18 Did you ever make a recommendation
19 that the IGT system be used simply because it had
20 been used in the past with other Acres systems?

21 A. Well, I actually have no experience
22 with the IGT system at Acres. I mean, you know,
23 when it was used with Acres, I wasn't working
24 there.

25 And by the time I got to Acres, the

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1 decision had been made to do it, you know, with
2 SQL. And that was my job to do it with SQL. If I
3 recommended not to do it with SQL, they might not
4 have needed me.

5 Q. What is Perry's last name again?

6 A. Waldner.

7 Q. When did he start at Acres?

8 A. I believe he started roughly within a
9 month of me.

10 Q. So sometime around late September
11 '98?

12 A. Again, you know, to the best of my
13 recollection.

14 Q. Where had he worked before Acres, if
15 you know?

16 A. He was from North Dakota, and he is
17 relatively young. And I'm not sure of his
18 background, but he's quite good with Windows
19 programming. I will give him a recommendation as a
20 programmer.

21 Q. Do you know if he had been in the
22 gaming industry prior to coming to Acres?

23 A. I don't believe that he had been. He
24 certainly hadn't worked with me at any of the
25 companies that I had worked with, nor had I heard

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1 his name in my time in Las Vegas.

2 Q. And his primary responsibility was to
3 develop the Bodenstag interface?

4 A. Yes.

5 Q. Do you know if he had access to these
6 Oasis documents referred to in your statement?

7 A. I don't know for certain, but
8 probably he saw them because when the player
9 tracking task was turned over to him, you know,
10 most likely, I handed him anything I could deal
11 with.

12 Probably he gave them back to me
13 because he thought they were not useful too, but I
14 am not certain whether I actually did give them and
15 he gave them back or not. They were in my desk.

16 Q. They were in your desk when? At the
17 time you signed your statement?

18 A. Yes. When I was preparing to leave
19 Acres and I started cleaning out my desk, that was
20 one of the things that I came across in the back,
21 in the historical player tracking folder.

22 Q. What did the two Oasis documents show
23 with respect to interfacing with Bodenstag?

24 A. The one document was very useless to
25 me, and it basically described how to run the

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1 AS/400 software, you know, how to start it and stop
2 it and such, which didn't help me at all.

3 The other document, or at least an
4 appendix of it, showed some of the structure of the
5 packets, the information going back and forth
6 between the two systems, and you know, we could
7 have used any kind of packet to send the
8 information back and forth. And, you know, an
9 obvious choice would be one the Bodensstab system
10 could understand.

11 But as I say, the packets that were
12 used, I felt, had some real limitations.

13 Q. I remember you mentioned something
14 along those lines before lunch. I want to come
15 back to that in a minute.

16 Can you tell looking at paragraph 12
17 which of the documents is the one you are referring
18 to that, you said, was useless to you, and one had
19 the structure of the packets?

20 A. Oh, jeez. If you would put the
21 documents in front of me, I certainly could.

22 Q. I will give you a document that was
23 previously marked as Exhibit No. 453 at the Spencer
24 deposition. So we will just stick with that
25 designation.

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1 A. Okay.

2 Q. Is this the Oasis AS/400 interface
3 document, dated September '96, that you are
4 referring to in your statement?

5 A. Give me a second.

6 Q. Okay. Certainly.

7 MR. RIEDINGER: For the record, I
8 object to whether the document is connected.

9 MR. DOWELL: Just to address that, I
10 assume you mean the fact that it's out of order in
11 Bates number range?

12 MR. RIEDINGER: No. The fact that
13 it's plainly two separate documents that have been
14 stapled together. Actually, three separate
15 documents that have been stapled together.

16 The first document having one date
17 and a particular document number attached. The
18 rear is a second document having a different date
19 and a different document number. And then, a
20 separate document review number, having yet another
21 date and yet another document number.

22 MR. DOWELL: Can you identify what
23 you are talking about with Bates numbers?

24 MR. RIEDINGER: Sure. The first
25 document begins with Bates No. 3006319. It has CDS

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1 document No. 23-00171-00 and is dated September of
2 1996. That extends through production page
3 3006359.

4 And then, in this material marked as
5 Spencer Exhibit 453, the next page is production
6 No. 3006319, which is document number -- which is
7 CDS document No. 23-00020-9, dated July 14th,
8 1998.

9 And then, the next document begins
10 with production No. 3006309 and goes through
11 3006316 and has CDS document No. 23-00287-00 and is
12 dated June 29th, 1998.

13 Three separate documents.

14 MR. DOWELL: I agree completely.

15 Do you recall from the Spencer
16 deposition if these were all one exhibit?

17 MR. RIEDINGER: I made a similar
18 statement at the Spencer deposition.

19 THE WITNESS: You know, and if I can
20 interject, this makes it rather hard for me. This
21 is not what I handed Jerry.

22 BY MR. DOWELL:

23 Q. To the extent it disables your
24 testimony, we'll make a note of it.

25 A. Okay.

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1 Q. We have previously, for whatever
2 reason, and I don't know why, three documents have,
3 in fact, been collected together and marked as an
4 exhibit.

5 So we will just leave them together.

6 We have already got this on the record, and we will
7 talk about them as separate documents. Just assume
8 that they are stapled together not to identify them
9 as one document but just for administrative
10 purposes.

11 Is the first document, the document
12 numbers on top which are 3006319 through -59, the
13 September '96 document you are referring to in your
14 statement?

15 A. Are you asking me?

16 Q. Yes.

17 A. Where is -59?

18 Yeah. I mean, I think this was
19 originally a separate document, and it looks to be
20 similar to what I handed Jerry.

21 Q. Was this the one that you found was
22 found to be useless, or was it the one that you
23 had -- that had the structure of the packets?

24 A. Well, this was the useless one, and
25 if you look at the page that has 3006329 on it,

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1 this talks about the operation of the AS/400 side
 2 of the interface. And honestly, I could care
 3 less. I don't care what the heck is out there.
 4 I don't care how to stop it. That's, you know, the
 5 Bodenstab or the casino's responsibility.
 6 I want to know what it talks, you
 7 know, what I look to. And so this didn't matter.
 8 Again, I think this is probably the
 9 separate document, which would be starting with
 10 page 3006309, although I think it had some kind of
 11 header or front page in front of it that seems to
 12 be missing. There's at least a couple pages that
 13 do seem to be missing.
 14 But this is -- this is what I
 15 believe was, to the best of my knowledge, the other
 16 document.
 17 And the first problem is on page
 18 3006319 where it talks about the APPC protocol.
 19 The APPC protocol is an IBM
 20 proprietary interface that works very well with the
 21 AS/400, and my job at Acres was to build a player
 22 tracking interface that, while now it may be used
 23 with Bodenstab, it's to, you know, in general be
 24 used with any number of make tracking systems.
 25 Again, we didn't want to make six of them.

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1 Q. Right.
 2 A. And if we had, for instance, tried to
 3 do this and used the APPC protocol, it would have
 4 made it impossible for us to attach to the majority
 5 of other systems out there. It would have limited
 6 us to the IBM world.
 7 The message formats start on page
 8 3006312, and there's any number of messages that
 9 look like they could be used to try and synchronize
 10 two databases.
 11 The problem with this is we didn't
 12 want to synchronize two databases and worry about
 13 dealing with them getting out of sync and dealing
 14 with maintenance. We wanted the database to rest
 15 on the player tracking side, and we just wanted to
 16 get information regarding cards and sufficient as
 17 to whether they were valid or not.
 18 And at that point, I closed the
 19 document.
 20 Q. So you determined after that review
 21 that the information shown in here wasn't what you
 22 wanted to do with the interface?
 23 A. That's correct.
 24 Q. Help me with what interface we're
 25 talking about.

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1 A. This is, you know, the interface that
 2 we would be using on the Wizard system to talk to a
 3 player tracking system.
 4 Q. Is this the BIF?
 5 A. The BIF. In effect, the BIF.
 6 Q. So this is the programming that would
 7 be in the BIF?
 8 A. Yes.
 9 Q. Okay.
 10 THE WITNESS: Jerry, could I get a
 11 clarification here? Am I allowed to talk about
 12 Acres proprietary information as well?
 13 MR. RIEDINGER: It's covered by the
 14 protective order as well.
 15 THE WITNESS: Acres right now is
 16 developing its own player tracking system, and
 17 they're using the same BIF interface. They're not
 18 rewriting a single bit of it.
 19 And so, you know, in the future, any
 20 casino could either choose to use Bodenstab or
 21 choose to use Acres proprietary, or because we
 22 programmed it portably, any other person's player
 23 tracking system that would meet these minimum
 24 standards.
 25 So it was very important for us to

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1 make this interface, you know, simple,
 2 straightforward, and easy to use and not lock it
 3 into, say, an AS/400.
 4 BY MR. DOWELL:
 5 Q. And so, is it accurate to say that
 6 when you looked at the interface specifications for
 7 the CDS system --
 8 A. Well, I would refer to this as the
 9 interface specifications for the Bodenstab system.
 10 Q. When you looked at the interface
 11 specifications for the Bodenstab system, did it
 12 appear that it was not generic enough to your
 13 taste? Is that accurate?
 14 A. Overly complicated, fragile. You
 15 know, not robust.
 16 Q. I understand what you mean by that.
 17 Okay.
 18 And so, your goal, then, was not to
 19 make something like this but to make something that
 20 was more robust and less complicated?
 21 A. Right, that would work for, you know,
 22 all of our player tracking interfaces.
 23 Q. But did you still have to make
 24 something that would interface with the Bodenstab
 25 system?

1 A. Well, the AS/400 has come a long way
2 from this kind of technology, and as part of IBM's
3 E Commerce Initiative, they have made the AS/400
4 work like what I would refer to as a normal
5 computer. It will talk now normal standard network
6 protocols.

7 And so, since we wished to use
8 standard protocols and since the AS/400 now
9 supported them, we felt that that would be the
10 direction we would take, with the AS/400 and
11 Mr. Bodenstag as well as anybody else.

12 Q. You may have answered my question,
13 but I don't understand how your response answered
14 my question.

15 I was saying: Was your goal still to
16 have something that would interface with the
17 Bodenstag software?

18 A. It wasn't my problem that Tom had to
19 work to do it in a better way.

20 As long as Pat and the powers that
21 be, you know, would back me up, I would show him
22 how to do it right.

23 If someone had told me, "No, it must
24 be done the way he already does it," I would have
25 done what they told me.

1 Q. So how did it ultimately come out?
2 Did Bodenstag make changes?

3 A. Yes.

4 MR. RIEDINGER: That's two questions.

5 MR. DOWELL: Okay.

6 MR. RIEDINGER: Which question are
7 you asking?

8 BY MR. DOWELL:

9 Q. Did Bodenstag ultimately make
10 changes, then, to his software to link up with the
11 Acres system?

12 A. Well, I never actually saw this run,
13 but I know that Tom through System Source did it
14 the way we suggested.

15 Q. So would you say that the interface
16 between the Bodenstag software and the Acres system
17 is different from the interface between the
18 Bodenstag software and the CDS system?

19 A. It's certainly different than this
20 document. If this document describes the interface
21 to the CDS system as implemented, then it would be
22 different.

23 Q. Is this document you were referring
24 to what we had marked as Spencer 453?

25 A. Yes.

1 Q. Is your understanding of the
2 interface between the CDS system and the Bodenstag
3 software limited to what you read in this document?

4 A. Yes.

5 Q. You didn't work with that when you
6 were at CDS?

7 A. No. In fact, so far as I know, it
8 was developed after I left.

9 Q. What in the interface in the Acres
10 system is the same as what is shown in these
11 documents that we have marked as Exhibit 453?

12 MR. RIEDINGER: Objection. Assumes
13 facts not stated.

14 BY MR. DOWELL:

15 Q. Let me back up one.

16 Are there any similarities between
17 the interface developed for the Acres system with
18 the Bodenstag software and what is shown in the
19 document we marked as -- the collection of
20 documents we marked as Exhibit 453?

21 A. The first part that used to be a
22 separate document that I labeled as useless that
23 describes the AS/400 side of things, I've never
24 seen Tom's side of things. As I said, I didn't
25 particularly care. So I don't know if any part of

1 that is similar or not.

2 As far as the back part, which,
3 again, starts with page 3006309, the engineering
4 specifications -- well, I mean, with the exception
5 of some of the fields like "last name" being common
6 to both messages, I don't believe there's really
7 any other correspondences.

8 In fact, here, where there's one,
9 two -- here, where it shows eight different
10 messages, the Acres system only uses three.

11 Q. What are you referring to?

12 A. Pages 3003612 through pages 3006316
13 describe eight messages, whereas, the Acres system
14 only uses three messages.

15 Q. That is a difference, assuming that
16 is true.

17 What similarities can you identify?

18 A. As I said, about the only thing
19 that's similar, in some of our messages, which are
20 different, we have a field called, "Say last
21 name."

22 Although, trust me, I knew we needed
23 to put "last name" in before I saw this document.

24 I mean, we also used packets, network
25 packets, to talk back and forth, as is common.

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1 I don't see any other similarities.
 2 Again, there is an Acres document
 3 that describes the Bodenstab-to-Acres interface,
 4 and again, a software expert could compare these
 5 two very easily.
 6 Q. And not believe that there was a
 7 corollary between the two?
 8 A. I don't think he would find anything
 9 in common.
 10 Q. Is the structure of the packets
 11 anywhere the same?
 12 A. No. In fact, as I said, instead of
 13 using eight packets, we used three completely
 14 different packets that have different means.
 15 And the task that the interface does
 16 is completely different. Instead of trying to
 17 synchronize two databases, the Acres system has a
 18 player card that just has the valid card sort of
 19 information we need, the minimum.
 20 One of proprietary advantages of the
 21 Acres system is that if the player card is ever
 22 completely blown away, without any human
 23 intervention, it will recover. The Bodenstab
 24 system or any other player tracking system
 25 implementing that interface will refill the card,

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1 causing it no problems.
 2 Q. So under the Acres system, the
 3 Bodenstab software doesn't receive information from
 4 the list of players to update the Bodenstab list?
 5 A. That's correct. In effect, it's sort
 6 of one-way data transfer.
 7 He sends us information to expect
 8 like card numbers and last names, and we send him
 9 what we call completed rating records, which is,
 10 you know, a card went in, a card came out, here's
 11 how much play occurred.
 12 So for instance, there is no delete
 13 player message that I know of on our side.
 14 There's no jackpot debit message.
 15 There's no jackpot credit message. There's no
 16 change primary OCR number message. There's no
 17 account number information change.
 18 There isn't even the concept of a
 19 primary player.
 20 Q. How is it that both the CDS system
 21 and the Acres system both came to use a 20-digit
 22 number?
 23 MR. RIEDINGER: Objection. Lack of
 24 foundation on the reference to "the CDS system."
 25 THE WITNESS: Actually, I would say

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1 assumes facts not in evidence, certainly.
 2 In fact, the CDS number, based on my
 3 knowledge of working at CDS, does not use a
 4 20-digit number.
 5 BY MR. DOWELL:
 6 Q. Does it use an 18-digit number with
 7 stops?
 8 A. I think so.
 9 Q. Does the Acres system use an 18-digit
 10 number with stops?
 11 A. The Acres system is variable. It
 12 will use any legal Track 2 value, from 1 digit to
 13 20.
 14 Q. What does it actually use, though?
 15 A. Whatever the player tracking system
 16 sends.
 17 It can use mixed. Some can be 4
 18 digits long, some can be 10, some can be 18, some
 19 can be 20.
 20 Q. At Mandalay Bay, what does it use?
 21 A. From the last time I was at Mandalay
 22 Bay, which, of course, was when I was still
 23 employed at Acres, it looked like the information
 24 that Tom Bodenstab was sending us were 18 digits.
 25 Q. So that was the same amount of digits

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1 as what the CDS system had used, to your knowledge?
 2 A. To my knowledge, the length of the
 3 numbers were the same.
 4 Q. You may object to this one as well.
 5 The Mandalay Bay 20-digit numbers --
 6 A. Up to 20. Up to 20, let's say.
 7 Q. -- or the 18-digit numbers converts
 8 to a 10-digit number in the same way that the CDS
 9 system does the same conversion?
 10 A. Oh, no.
 11 Q. Assuming that is true --
 12 A. No. Let me explain this a little
 13 more clearly.
 14 We take at Acres when we are
 15 converting up the up-to-20-digit number into 10
 16 digits, we take each of the -- two of the 20
 17 digits, and we pack them into one byte. And when
 18 we unpack them, we take the first byte and turn it
 19 into the first two digits and just follow through
 20 the packet.
 21 The CDS algorithm is way more
 22 complicated. Stuff shifts around. There's
 23 imbedded check sums, imbedded site numbers, the
 24 going from 18 digits to 5 digits is actually quite
 25 hard.

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1 Q. You know what, I might have misspoken
2 and not been clear.
3 As I understand it -- and I am
4 subject to correction. I understand that if you
5 take the 20-digit numbers that come off a card that
6 is usable at Mandalay Bay, and you run the process
7 that CDS uses in its system on that 20-digit
8 number --
9 A. To convert it to a five-byte number?
10 Q. No, to convert it to the player
11 number that you see on the card.
12 A. Okay.
13 Q. You get the same number that you
14 would if you used the CDS algorithm.
15 My first thing: Do you understand
16 what I am saying?
17 A. No. Would you try that again.
18 Q. As I understand it, you can pull a
19 20-digit number off the stripe on the back of the
20 card?
21 A. Okay. Yeah.
22 Q. On the front, there is, I think, a
23 10-digit player number?
24 A. Okay.
25 Q. CDS as an algorithm, in fact, you are

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1 familiar with the CDS algorithm that will convert
2 between those two numbers?
3 A. Yes. I don't know that Tom is
4 actually using that algorithm at Mandalay Bay,
5 though.
6 Q. I don't want to assume anything more
7 than I have to in my questions.
8 My question is, as I understand it,
9 if you take a Mandalay Bay card and you pull that
10 20-digit number off the back, and you apply the CDS
11 algorithm, whatever it is, you will come up with
12 the same player number on the front of the card
13 that is shown there?
14 A. That's certainly true at a CDS
15 casino, that there's a way to go from the 18-digit
16 number to the account number.
17 Q. As I understand it, at Mandalay Bay,
18 there is the same relationship between the 20-digit
19 number on the back and the 10-digit number on the
20 front?
21 MR. RIEDINGER: Objection. Assumes
22 facts not testified to.
23 THE WITNESS: The only way to
24 determine that would be to take the 18-digit
25 numbers and the 8-digit numbers or 9 or whatever

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1 they are, and apply the CDS algorithm to that.
2 It's not something you can do by hand, with pencil
3 and paper, and I can't do that without the CDS
4 algorithm.
5 BY MR. DOWELL:
6 Q. What I am asking -- this has gotten
7 kind of bogged down because I am asking you to
8 assume this. I know you haven't tried to make this
9 conversion.
10 If this is true --
11 A. Okay. If they're using CDS numbers,
12 and there's a conversion between the two that's
13 similar to what I know of from my work there?
14 Okay.
15 Q. Right.
16 A. Go from there.
17 MR. RIEDINGER: I am objecting to
18 this as hypothetical.
19 MR. DOWELL: Right.
20 BY MR. DOWELL:
21 Q. Can you explain why there would be
22 that same relationship between the 20-digit
23 magnetic number on the back of a Mandalay card with
24 the player number on the front, as there is between
25 the same two numbers on the CDS cards?

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1 A. Oh. I mean, I don't know that there
2 is. There's no need to be.
3 Q. Okay. That's true.
4 Assume that there is, and this is a
5 fact that is not presented here for you other than
6 my words, which are not evidence and mean nothing.
7 Assuming that is true, is there a
8 reasonable explanation for that, that you are aware
9 of?
10 MR. RIEDINGER: Same objection.
11 Hypothetical.
12 THE WITNESS: The CDS algorithm is
13 relatively screwy. It is a very unique algorithm
14 that was designed for optical cards.
15 For someone to independently develop
16 that for use on magnetic cards would be wrong.
17 I mean, it's not the best algorithm for magnetic
18 cards.
19 So if it were the same as CDS,
20 hypothetically, I would assume that someone would
21 have had to have seen or understood the CDS
22 algorithm.
23 BY MR. DOWELL:
24 Q. Someone at Acres?
25 A. No. Acres doesn't know -- the two

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1 numbers come down from Bodenstab's side of things,
2 and so, if the conversion between the two, if you
3 can match these two and the CDS algorithm works,
4 wherever they are being produced would have to have
5 that algorithm.

6 Q. Where are they being produced, then?

7 A. Somewhere upstream. Perhaps the
8 Bodenstab system. But, again, I only know what
9 comes to Acres.

10 You know, if someone is creating a
11 card, and when they create the card, they put the
12 8-digit number on the front and the 18-digit number
13 on the back, and if that matches what CDS did, I
14 would assume that they're using CDS's algorithm.

15 Q. But you have no knowledge of where
16 that use would be occurring, if it is?

17 A. If it is, I know it would be on the
18 other side of BIF.

19 Q. On the Bodenstab side of BIF?

20 A. But, you know, for instance, all
21 these systems, various systems, can hook to each
22 other.

23 I truly, honestly don't know whether
24 there's not another system on the other side of
25 Tom's that could be sending him these numbers or,

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1 you know, who knows.

2 Q. Would you agree that that algorithm
3 that makes the 20 to 10 conversion that we talked
4 about at CDS, that is proprietary to CDS?

5 A. I think I misheard you.

6 You said 20 to 10?

7 Q. 18 to 10?

8 A. If it's CDS, you mean 18 to 5.

9 Q. Okay. Let me scratch this line and
10 try again.

11 What I am referring to is the
12 relationship between the magnetic number on the
13 back of a CDS card and the player number on the
14 front.

15 Are you aware of an algorithm that
16 expresses or converts between those two numbers?

17 A. From my work at CDS, yes.

18 Q. Would you agree that that algorithm
19 is proprietary to CDS?

20 A. I would assume since Jay Stone made
21 it that no one on the planet besides CDS would know
22 how to do that.

23 Q. In your statement, paragraph 13, you
24 said that -- did you write this statement?

25 A. Yes. I had it on my computer and

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1 edited it.

2 Q. Did you write it all from scratch, or
3 did anyone assist you?

4 A. I am not certain where some of the
5 original concepts came from.

6 It could be that -- I think I

7 started out verbally dictating it, and then I got
8 it back written.

9 Q. Did anyone assist you with the topics
10 to cover?

11 A. Not that I recall.

12 I pretty much -- having looked at
13 that page of the complaint, I pretty much in this
14 statement tried to explain, you know, where it came
15 from and why I didn't think it was a problem.

16 Q. And so, you wrote it all on your own
17 based on what you had read?

18 A. As I say, I think I started dictating
19 it, and then, I polished it on the computer.

20 Q. But with no one else serving in an
21 editorial function?

22 A. Well, I mean -- I mean, the original
23 conversation happened in Jerry Haynes' office, when
24 he asked me about this complaint.

25 Q. Since the time you left Acres, has

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1 anyone talked to you about your giving testimony at
2 or on behalf of Acres?

3 A. No. In fact, I'd rather not.

4 Q. In the last paragraph, No. 13, it
5 says:

6 "While employed by Acres, I
7 have never used I think CDS
8 confidential information for
9 any purpose related to Acres
10 business."

11 What do you understand CDS's
12 confidential information to encompass, or how do
13 you define it?

14 A. While I was at CDS, there were a
15 bunch of algorithms, let's say, a bunch of
16 processes that CDS explained to me were -- that
17 they thought were unique in the industry, and
18 served, you know, some value to them, and that's
19 what I consider it to be their confidential
20 information.

21 Q. In the software field, in your
22 business, is it pretty clear what is proprietary
23 and what is not, or is it a pretty gray area?

24 A. Everywhere but Las Vegas, it's a
25 pretty clear area, pretty clear distinction.

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1 In Las Vegas, there's an awful lot of
2 people who use techniques that are public knowledge
3 that if they developed them, even though they're
4 public knowledge and other people have developed
5 them, sometimes consider them proprietary.

6 I have been surprised at a number of
7 companies that have asked me to sign nondisclosure
8 agreements for stuff that's in every bookstore.

9 Q. Can you give me an example of
10 something generic enough that a layman would
11 understand?

12 A. Sure. If we take a look at this
13 document here, and we go back to the engineering
14 section, which is page 3006313, you see that every
15 packet starts with something called an STX, and it
16 ends with something called an ETX, and then, it has
17 a checksum.

18 And protocols all over the world use
19 this. TC/IP has used this. Every TC/IP has a
20 start and an end and a checksum.

21 Every Kermit packet, which is another
22 protocol for file transfer that's been in the
23 public domain for 20 years, for instance, uses that
24 exact mechanism. These packets are generally act
25 and not act.

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1 Again, this is something that every
2 computer network does.

3 If you take this same technique
4 that's used on every computer network and, you
5 know, every 485 network around, there's gaming
6 companies in town that think that it's somehow
7 proprietary to them when these techniques were
8 discovered long before those companies existed.

9 So I would not consider something
10 that I can look up in a bookstore, say,
11 confidential.

12 Q. How would one go about determining if
13 a particular coding technique was worthy of being
14 confidential information as opposed to public
15 domain information?

16 A. I will answer that question as I
17 think I can.

18 Public domain information is very
19 simple. It is information that is in the public
20 domain. It's published. It's either published or
21 it isn't. If you see it, everyone is using it,
22 it's public.

23 As to whether something is
24 confidential, I mean, that means you can't see it.
25 I mean, it's available one place only.

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1 Q. Referring to the first of the three
2 documents that are stapled together in Exhibit 453,
3 the AS/400 interface, did you look at this document
4 at all when it was given to you?

5 A. You mean the instant it was given to
6 me?

7 Q. Yes.

8 A. Well, probably within a day or two.

9 Q. I mean, you looked through it to see
10 what was in here?

11 A. Yeah. I was actually hoping that,
12 you know, it would save me time and effort.

13 Q. Did you look at the notice on the
14 first page -- the second page, I should say, of
15 what we have stapled here with the notice that it
16 was considered by CDS to be proprietary?

17 A. I see that.

18 In my business, where I have worked
19 for companies that sign NDAs all over the place, if
20 I see a document that refers to an interface that's
21 considered proprietary, I mean, we have a whole set
22 of legal departments making sure that the proper
23 NDAs are signed.

24 So, I mean, this particular document
25 dealt with the Bodensstab interface. We were

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1 dealing with Mr. Bodensstab. It seemed fairly
2 reasonable that if it were confidential that, you
3 know, everything would be correct with it.

4 Q. So you knew it might have been
5 proprietary, but you assumed there was a legal
6 document or whoever was taking care of the
7 agreements necessary for you to have access to it?

8 A. Well, I know Mr. Bodensstab doesn't
9 have a documentation department. So if the first
10 interface he had was with CDS, I didn't find it
11 unusual that it would come with CDS on it.

12 And having been from CDS, I think
13 they put "confidential" on every document,
14 honestly, you know, to protect themselves. Whether
15 it is or not, they will slap it on the front of it.

16 Q. What was the basis of your belief
17 that you were free to look at this? Was it an
18 assumption?

19 A. I'm an honorable guy, I work for an
20 honorable company. My boss handed it to me. I was
21 handed it by Mr. Bodensstab. It seemed fairly
22 reasonable. It passed my smell test.

23 Q. So you accessed it because you
24 trusted Pat Powers to have made the necessary
25 inquiries to ensure you access to it?

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1 A. Well, Pat and Acres and Bodenstab.
 2 Everyone.
 3 Again, in the course of my business,
 4 I mean, I see an awful lot of stuff that's
 5 confidential from one company to another. I don't
 6 always, you know, on each document go to the
 7 original source or to the legal department, you
 8 know.
 9 Q. Was it typical for you to have
 10 access, though, when at Acres to CDS documents?
 11 A. No. These were the only CDS
 12 documents that I saw.
 13 And I was actually a little bit
 14 surprised to see them. But when I looked through
 15 here, and it described nothing but the AS/400 side
 16 of things, then I said: Okay. It's certainly, you
 17 know, Tom's information.
 18 Q. So you looked through it and
 19 determined that it wasn't of any use to you?
 20 A. Well, certainly, the stuff that
 21 discussed Tom's software, you know, on the AS/400,
 22 since we don't use an AS/400, is not going to help
 23 me.
 24 Q. Did you contact Mr. Powers after you
 25 had looked at this to say or question whether or

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1 not you had rightful access to this information?
 2 A. No. Actually, what I said after
 3 relatively quickly glancing at it is, "I hope we
 4 don't have to do it this way. I want to do it
 5 right."
 6 Q. So would you say you had a benefit
 7 from looking at this, in your view, seeing a bad
 8 example of how it was done?
 9 A. I don't know that a bad example helps
 10 you do it right. I think if you can tell it's a
 11 bad example, you probably already know not to go
 12 down that path.
 13 Q. Did you receive any other information
 14 concerning interfaces with a player tracking system
 15 that had any kind of a Casino Data Systems'
 16 designation on it?
 17 A. No.
 18 Q. Was there a standard procedure at
 19 Acres concerning how to deal with information that
 20 might be another company's proprietary information?
 21 A. I have never worked at a company in
 22 this industry that had some sort of formal
 23 procedure, if that's what you mean.
 24 You know, for example, one of the
 25 things that I saw while I was at Acres and another

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1 version I saw while at CDS was -- certainly
 2 considered proprietary is the SAS protocol, which
 3 is the protocol that IGT uses to its slot
 4 machines.
 5 And at both CDS and at Acres, since
 6 we hooked to slot machines, I was handed one of
 7 these copies, and in both cases, it said on it, you
 8 know, "Proprietary, IGT."
 9 You know, again, I was pretty certain
 10 that our companies were, you know, licensed or
 11 legally allowed to have it.
 12 But I mean, in neither case, at CDS
 13 or at Acres, did I say, "I want to see a signed NDA
 14 before I look at this."
 15 Q. So you don't know for sure whether
 16 this SAS protocol was, in fact, subject to an
 17 agreement between the parties?
 18 A. Well, given that it said
 19 "Confidential" on it, and given that I know that
 20 IGT has threatened to sue many people, and the fact
 21 that both CDS and Acres are using it, I mean, it
 22 must be okay. They would be sued otherwise.
 23 Q. When you received this, did you
 24 assume that there was some kind of an agreement
 25 between Casino Data Systems and Acres concerning

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1 the AS/400 interface?
 2 A. No. I was pretty certain, in fact,
 3 that Casino Data Systems and Acres would probably
 4 not have an agreement.
 5 But again, knowing that Tom Bodenstab
 6 doesn't have a documentation department, and given
 7 that this seemed to be 100 percent about an AS/400
 8 and really not much about CDS software, I thought
 9 that perhaps, you know, the CDS logo was not
 10 really, you know, part of what CDS would consider
 11 its own proprietary documents.
 12 Q. Have you ever been given information
 13 that had some kind of confidentiality designation
 14 on it that you chose not to review or -- well,
 15 that you chose not to review because of that
 16 confidentiality designation?
 17 A. Well, I've refused to sign NDAs with
 18 companies as a consultant because I didn't like the
 19 terms -- or didn't feel they were reasonable. And,
 20 you know, therefore, didn't see what stuff they
 21 were going to see me.
 22 Q. Having a peer or a boss hand you a
 23 document, have you ever -- I am trying to get a
 24 feel for how this is handled.
 25 Have you ever said, "Whoa, stop, we

1 better look into this and see if this is truly
 2 legal for us to have access to it?"

3 A. My job is kind of as a programmer,
 4 and, you know, it's my boss's job and the legal
 5 department's job to sign the NDAs and figure out
 6 the legal ramifications.

7 Someone hands me a document like
 8 that, it's not my nature to second-guess them and
 9 say, "I trust you enough to work here, but I don't
 10 trust you enough to follow the rules."

11 Q. So in your view, it is not your
 12 responsibility to track down the agreements and all
 13 that, and if your boss hands you a document marked
 14 "Confidential," somewhere it must be taken care of
 15 so that you can have access to it?

16 A. I am sure that if you handed me
 17 something marked, you know, "Top Secret Nuclear"
 18 whatever. Somewhere, there's a smell test where
 19 I'm certain that if there's a few documents that
 20 you put in front of me that I'd say, "Wait a
 21 minute. This seems fishy."

22 I am not saying I would blindly just
 23 go ahead and look at anything. But certainly,
 24 something like this didn't register on my radar as,
 25 you know, I should run screaming from the room.

1 Q. Why did you leave Acres?

2 A. I basically felt that I was made
 3 certain promises, one of which was a salary
 4 increase, and I had a review with my boss, Pat
 5 Powers, at which time, he told me that I would not
 6 be getting a yearly salary increase that I fully
 7 expected, and I resigned the next day. Gave my
 8 resignation the next day.

9 Q. Were there any other reasons for
 10 leaving?

11 A. Actually, I liked the company an
 12 awful lot. I like the products, I like the
 13 people.

14 No. If they had paid me or given me
 15 a raise, I would have stayed.

16 Q. Did Mr. Powers say why you would not
 17 be getting a raise?

18 A. Pat and I had in the course of
 19 working together, especially in, you know, a high
 20 pressure job like this, you know, had little
 21 run-ins or little butting heads, and I felt that it
 22 was pretty much a personality conflict between he
 23 and myself.

24 Q. What did he say, though, about why
 25 you wouldn't be getting a raise?

1 A. Well, actually, he didn't say I
 2 wouldn't be getting a raise.

3 Pretty much close to his exact
 4 phrasing was: If I was a good boy in a couple
 5 months, I might.

6 And I felt that he was kind of
 7 stringing me along, seeing as how we were a couple
 8 months down the road from where it was promised in
 9 the first place.

10 Q. What did he mean about being a good
 11 boy?

12 A. I took a day off to go to my
 13 girlfriend's daughter's wedding, and he apparently
 14 didn't feel I gave him enough notice for that. And
 15 that was one of the things he talked about in my
 16 review where he said I did a bad job.

17 Q. Was there anything else that was at
 18 issue that led him to say you had to be, as you
 19 said, a good boy?

20 A. Well, you have to understand, Pat
 21 drove his engineers very hard. This system was put
 22 together in six months, which is quite a feat.

23 And most people worked every
 24 weekend. Perry, for instance, took off, I believe,
 25 something like two days between January and March.

1 And I felt that was pushing it. And
 2 given my project was ready on time, I didn't need
 3 to work quite so many weekends. And Pat, I think,
 4 felt that I was setting a bad example, that if I
 5 started taking Saturday off or Sunday off, that
 6 others would too.

7 Q. Others would get that crazy idea?

8 A. And so, you know, there was an
 9 example, you know, where he, you know, expressed to
 10 me that, you know, almost whether or not I needed
 11 to be there, I should be there. You know, as sort
 12 of a show of company support.

13 And seven days a week for three
 14 months at my age is more than I am interested in.
 15 And I made that clear to him from the beginning as
 16 well.

17 Q. Did you have anything lined up prior
 18 to leaving Acres?

19 A. No. Believe it or not.

20 MR. DOWELL: I will mark as Exhibit
 21 309 a document that you produced this morning. It
 22 says at the top "60 Day Evaluation."
 23 (Exhibit 309 was marked for
 24 identification.)
 25 ///

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1 BY MR. DOWELL:

2 Q. Can you tell me what this document
3 is?4 A. Actually, I believe it was pretty
5 much closer to a 90-day evaluation by the time it
6 was given, and apparently, Acres, like many
7 companies, has a provisional period before you
8 become a full employee.9 And at the end of, I guess, 60 days,
10 you get evaluated, at which point, they decide
11 whether to make you permanent or not. And I think
12 that's what this was.13 Q. So it was 90 days after your hire
14 date of 8-31-98 or thereabouts?15 A. Roughly. It was certainly longer
16 than 60 days.17 Q. The wedding you took a day off for,
18 that was on a weekend?

19 A. Yes.

20 Q. It says in the comments that:

21 "Martin has, however, had
22 some trouble adjusting to the
23 company's corporate philosophies."

24 Do you know who wrote that?

25 A. This was written by Pat Powers.

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1 Q. What are the corporate philosophies
2 he is referring to?3 A. Well, sometime 60 days and 90 days,
4 while I was working 18 to maybe even 20 hours a
5 day, I was late turning in my time sheet, and I got
6 an E-mail from human resources, you know, stating
7 that. Okay.8 And again, things were very busy.
9 This is in the December time frame. We were trying
10 to get everything in, and I didn't respond to it
11 right away.12 So next thing you know, I got another
13 E-mail from human resources, and in fact, I got
14 eight E-mails from human resources in a period of
15 48 hours as to why my time sheet wasn't in.16 Given that I was working 18 hours a
17 day, I felt that this was somewhat unreasonable.18 And so, I sent those eight E-mails
19 with a somewhat nasty note to Pat, to Rich, to the
20 human resources person. And they felt that that
21 was not playing nice.22 And so, I believe that that
23 comment -- when he talked with me about that
24 document, that was the incident he mentioned.

25 Q. How many employees does Acres have?

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1 A. I would have to guess. I mean, the
2 phone list is there.3 MR. DOWELL: Why don't we mark that.
4 (Exhibit 310 was marked for
5 identification.)

6 BY MR. DOWELL:

7 Q. We will mark this Exhibit 310. It
8 appears to be an Acres phone list.9 Do you recognize this to be a list of
10 Acres employees and their phone numbers from
11 September of '98?12 A. I don't see September of '98 on
13 there.

14 Oh, down at the bottom?

15 Q. Yes.

16 A. Yes, that's what it looks like.

17 Q. Do you know if any of the individuals
18 listed here, other than yourself, were formerly
19 employed by CDS?20 A. Certainly, I know some. I wouldn't
21 hope to get them all. But we have previously
22 spoken about Rich Schneider.

23 Q. I am going to give you a red pen.

24 Could you circle everybody that was formerly at
25 CDS.

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1 A. As long as you're willing for me to
2 be wrong in either direction, I will do my best.

3 Q. Do your best.

4 A. I don't truly know the people from
5 Corvallis, but of the people in Las Vegas in this
6 column, I have marked the ones that I know to have
7 been employees of CDS. It could be incomplete.

8 Q. There could be more?

9 A. It could be more, or I could have
10 gotten one wrong.11 SpinTek, I believe, has also at least
12 six ex-employees of CDS as well as Silicon Gaming.13 In fact, I believe even Super Pawn
14 has three ex-CDS employees.15 Q. Is there a reason that CDS has so
16 many former employees, that you are aware of?17 A. At about the time I left, CDS went
18 through a little bit of a shake-up and had
19 approximately 20 employees resign in six months.

20 Q. Out of how many?

21 A. These are engineers that I am talking
22 about, and I believe in the engineering group,
23 there might have been 30. A very high percentage.24 Naturally, again, if you work in this
25 industry, if you work in Las Vegas in the computer

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1 building business, you work for a competitor.
 2 (Exhibit 311 was marked for
 3 identification.)
 4 BY MR. DOWELL:
 5 Q. I would like to give you a document
 6 that is marked as Exhibit 311.
 7 Have you ever seen a document like
 8 that or similar to that before?
 9 A. This doesn't look exactly like what I
 10 saw, but I think I did see a flow chart once of the
 11 Acres organization.
 12 Q. Based on your knowledge of the Acres
 13 organization, does it appear that this is a
 14 representation of the corporate structure of Acres?
 15 A. Not currently, but what date is
 16 it -- it's from 10-27?
 17 Q. It looks like October 27 of '98. Let
 18 me ask that question again.
 19 Based on your knowledge of the Acres
 20 organization around the time of October 27, 1998,
 21 does it appear to be an accurate representation of
 22 the corporate structure of Acres on that date?
 23 A. It looks pretty close.
 24 Q. Do you notice anything offhand that
 25 is incorrect?

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1 A. No. It looks okay, you know, to my
 2 knowledge.
 3 Q. If you could refer back to the Bates
 4 No. 2043250.
 5 A. The Bates number?
 6 Q. Yes. That is the -- I am referring
 7 to that little number that the lawyers stamp on
 8 there.
 9 A. There it is.
 10 Q. It wasn't originally on there.
 11 A. 204?
 12 Q. 2043250.
 13 A. 3250.
 14 Q. Under "Pat Powers" -- who you
 15 testified was your boss, correct?
 16 A. Uh-huh.
 17 Q. -- it says, "CABS." What does that
 18 mean?
 19 A. I don't know about the C, but ABS
 20 would be the Acres Bonusing System.
 21 Q. Could you circle on this page the
 22 employees that were formerly employed by Acres.
 23 And if you could just read them off --
 24 A. Formerly employed by CDS?
 25 Q. Yes. Formerly employed by CDS.

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1 And if you could read them off out
 2 loud for the record.
 3 A. Richard Schneider, Martin Dempsey,
 4 Darryl Pleasant, Miles Patceg. Perry Cobb, Scott
 5 Boyd, I believe some of the artists, actually, too,
 6 but I'm not certain which ones.
 7 Q. Just for the written record, could
 8 you read off the names that you circled on the
 9 phone list that we marked as Exhibit 310.
 10 A. That would be Scott Boyd, Perry Cobb,
 11 Robert Cole, myself, Miles Patceg, Darryl Pleasant,
 12 Rich Schneider.
 13 MR. DOWELL: Why don't we take a
 14 break.
 15 (There was a recess taken.)
 16 BY MR. DOWELL:
 17 Q. Mr. Dempsey, I will give you a
 18 document that we previously marked as Bodensab
 19 Exhibit No. 351.
 20 First, I will ask if you have ever
 21 seen this document, not including the handwritten
 22 notes all over it.
 23 A. This certainly looks to be a
 24 description of the CDS algorithm.
 25 Q. The algorithm that -- what algorithm

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1 is that, I should say?
 2 A. This is the algorithm as to how to
 3 encode a card in a CDS format so that the Sentinel
 4 will accept it.
 5 Q. To your knowledge, is this algorithm
 6 being used anywhere in the Acres system installed
 7 at Mandalay Bay?
 8 A. I am pretty certain that it is
 9 nowhere in there.
 10 Q. Why do you say "pretty certain"?
 11 A. I haven't seen every piece of
 12 software in the Acres system. It's, you know,
 13 rather large. But no part that I've seen -- and
 14 I've seen quite a bit -- has it in there.
 15 And every piece where you would
 16 reasonably place this algorithm, such as to decode
 17 the card number, I know it's not there.
 18 Q. Where would those places be where you
 19 would think it might be?
 20 A. You could, again, like CDS, place it
 21 in the firmware of the SMB.
 22 You could make it -- perhaps,
 23 another place where it might be placed would be in
 24 a program called the Concentrator. Another place
 25 where it could be placed to decode the card would

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1 be the Translator. And the last place where it
2 could probably be placed would be in the BIF
3 program. And that defines a path from the card
4 reader up to the Bodentab still and back.
5 If you were to place this algorithm
6 anywhere else, it wouldn't necessarily do you any
7 good.

8 Q. The Concentrator is a software
9 machine rather like the Polar. It is the first
10 stop from the floor equipment into the back of the
11 system.

12 CDS has two devices, one called the
13 Polar and one here called the Transaction
14 Processor, although I have heard it referred to as
15 the Tracker as well. Acres has programs that are
16 different in many ways, but it also has two
17 programs, one called the Concentrator, more
18 naturally similar to the Polar, and the Translator,
19 which is more similar in certain ways to the
20 Transaction Processor.

21 (Exhibit 312 was marked for
22 identification.)

23 BY MR. DOWELL:

24 Q. I give you a document that I am going
25 to mark as Exhibit 312. I will give that to

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1 counsel for Acres and give you this copy with the
2 sticker on it.

3 Do you recognize this document?

4 A. Yes.

5 Q. Could you tell me what it is?

6 A. This is an internal document that I
7 created, apparently, sometime around January 14th,
8 that I sent to my boss, Pat Powers, that had a list
9 of outstanding items that I felt had to be done on
10 the Translator in order to get the system ready for
11 Mandalay Bay opening.

12 Q. Was this a type of document you
13 routinely sent to Mr. Powers?

14 A. Either verbally or in writing.

15 I, you know, gave my boss status
16 checks and updates as to where we were. A lot of
17 times, it was more informal, and I'd just
18 mention, "I got this done," or, "I was working on
19 that." But sometimes I think he might have asked
20 me for a list, or I gave him a list.

21 Q. So you prepared this list in the
22 course of your normal duties at Acres?

23 A. Yes. And just by the way, you know,
24 it was really shorthand meant for from him to me.
25 So I mean, it's not full sentences or not

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1 necessarily guaranteed to make sense without a lot
2 of explanation.

3 Q. This was the standard method of
4 communicating, though, in your group?

5 A. I don't think so. I mean, Pat had a
6 very informal approach. It was rare that I
7 actually sent him a document, and I don't know that
8 other people necessarily sent him documents often.
9 He would more likely, you know, just get us all
10 around a table and ask where we were.

11 Q. But this was just a report about
12 routine matters that you were reporting to your
13 boss?

14 A. Yes. And I actually used it as a
15 checkoff list. As I'd fix something, I'd cross it
16 off.

17 (Exhibit 313 was marked for
18 identification.)

19 BY MR. DOWELL:

20 Q. I will give you a document that I am
21 marking as Exhibit No. 313. The document Bates
22 No. 3009870.

23 Do you recognize this document?

24 A. Not yet.

25 Q. Please take a look at that, and I

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1 would like to ask you some questions about it.

2 A. Yes. This looks like a document that
3 I wrote.

4 Q. Was this an E-mail that you sent to
5 Meyer, Powers, Lamb, Srinivasan, and Waldner on
6 November 4th, 1998?

7 A. Yes.

8 Q. What is the subject matter of the
9 E-mail you sent?

10 A. The subject matter is that our
11 current approach, or the approach we were using, I
12 guess, as of November, which was to use a ULONG,
13 which is a four-byte binary number, which is the
14 most natural sort of number format on a modern
15 computer, wouldn't be able to work properly with a
16 true player tracking system.

17 And the reason that we were able to
18 use it up to this point is that we were generating
19 our own little card numbers. We weren't attaching
20 to a player tracking system.

21 And since we could control the
22 numbers we were generating, we could make sure that
23 they were small enough to work with this system and
24 that we needed to change our system to be more
25 general.

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1 Q. Underneath issue No. 2, it says:
 2 "For Mandalay Bay, we don't
 3 just have to operate using CDS
 4 cards but operate cross
 5 property with a Player Tracking
 6 System that also attaches to
 7 CDS systems."
 8 What does that mean?
 9 A. Typically, Circus uses one AS/400 for
 10 their properties.
 11 Then I didn't know very much about
 12 the Bodenstag system, only that we were going to be
 13 using it. And I knew that Circus was using
 14 Bodenstag to stop to Bodenstag somehow. And if
 15 they had one AS/400 running Tom's software that was
 16 doing multiple player tracking for multiple
 17 properties, some of which are CDS and some of which
 18 aren't, that we would have a real problem unless we
 19 managed to deal with that.
 20 It turns out, actually, that Tom's
 21 software didn't run cross-property. He runs even
 22 on the same machine, you know, each casino
 23 separately.
 24 Q. So they are not all linked together
 25 by a common computer at all the Circus properties?

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1 A. To the best of my knowledge, all the
 2 player tracking clubs are completely separate at
 3 this point.
 4 Q. Isn't it true that you can use like a
 5 card from Circus Circus casino at Mandalay Bay and
 6 vice versa?
 7 A. I don't know that.
 8 I know that some Luxor cards
 9 accidentally appeared to work at Mandalay Bay. And
 10 this is really horrible. This was not a feature;
 11 this was a bug. And it was a bug, and whoever
 12 generated the card numbers, the Bodenstag or Circus
 13 or however it was done, because it didn't work
 14 properly.
 15 What happened was that they reused
 16 some numbers that were also in the Luxor system so
 17 that a customer coming in from Luxor and putting
 18 their card in would get -- it would appear to be a
 19 good card, it would appear to work.
 20 However, it would say, "Hello, Joe."
 21 It would have the wrong name, and it would, in
 22 fact, be some other customer that actually existed
 23 in Mandalay Bay. And if the Luxor customer played
 24 thinking they were accruing points, in fact, they'd
 25 be going into this other person's account.

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1 Q. Now, is the Luxor a Circus property?
 2 A. Yes. Yes. This is what Perry told
 3 me when he came back from the property one day.
 4 And he was quite aghast at it.
 5 You know, we didn't have a solution
 6 because since we didn't generate these numbers and
 7 couldn't change them and whatever, I mean,
 8 theoretically, the person's Mandalay Bay card would
 9 work over at Luxor and give points to the other
 10 guy.
 11 So unless they both happened to
 12 accidentally play the same amount, someone could be
 13 thinking they're getting points and not. And it
 14 wouldn't really be a CDS problem or a Mandalay Bay
 15 problem so much as these customers are confused.
 16 Now, I don't think I knew that until
 17 long after Mandalay Bay opened. I think I heard
 18 about Luxor cards working probably sometime in
 19 March.
 20 Q. "For Mandalay Bay," this
 21 says, "we just don't have to
 22 operate using CDS cards."
 23 If it's an Acres system, why would
 24 you have to operate using CDS cards?
 25 A. Because at the time, Tom Bodenstag

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1 was generating these cards, and what he did to get
 2 us started was actually hand us some cards from
 3 other CDS systems and said, "Try these."
 4 And so, we tried again to try and use
 5 them. And these are, you know, again cards that
 6 any person can be given. All you do is walk into,
 7 say, Luxor, give them your name, and they'll hand
 8 you a card. You can take this card to any Track 2
 9 reader, run it in, and up comes this number.
 10 So the thing is that when you try and
 11 decode this number, as we're talking about with
 12 this algorithm, we can't decode number the same way
 13 that, say, Tom might be. We don't -- we don't
 14 have that algorithm.
 15 So I set up a red flag to Pat and
 16 said, "Hey, we got to do something about this."
 17 Q. I guess I am not following your
 18 answer.
 19 A. Maybe would you tell me the question
 20 again.
 21 Q. Let me try again.
 22 It says:
 23 "For Mandalay Bay, we don't
 24 just have to operate using CDS
 25 cards."

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1 So I understand that what you are
2 saying here is you have to be able to use CDS cards
3 at Mandalay Bay; is that right?

4 A. Well, anybody's cards.

5 For instance, if you take a look at
6 issue 1, No. 3, it talks about a separator
7 character that is usually represented by a dash.

8 It turns out that the ACSC player
9 tracking system, which is in use by the Reserve,
10 uses these separator characters; that CDS doesn't
11 do it, but some of these other systems do.

12 So if we're going to use anybody's
13 cards, regardless of where they're created, we have
14 to be able to handle anything that can be encoded
15 on that mag stripe.

16 Q. Maybe perhaps on a simpler basis, I
17 thought the goal was to have at Mandalay Bay it
18 only use Mandalay cards.

19 Is that incorrect?

20 A. Well, I mean, again, back in
21 November, we didn't know what was happening. And
22 whether the cards were Mandalay Bay cards or Luxor
23 cards or Circus cards or even ACSC system cards, we
24 had no control over that since Acres didn't create
25 the card number.

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1 Q. So was it your understanding in
2 November that someone with a Luxor card should be
3 able to walk into Mandalay Bay and be in the club
4 and get points?

5 A. Have it work properly?

6 Q. Right.

7 A. No. In fact, in November, no one was
8 doing that.

9 However, people had talked about it
10 for years, and I saw an article in the newspaper in
11 the spring, I believe, where Station Casinos has
12 implemented something they call a Station pass or
13 Station card where their cards now apparently work
14 at all their casinos, where you can get one card
15 that works everywhere.

16 Q. So that was not a goal of the
17 Mandalay Bay installation, though, to have the
18 cards compatible across all Circus properties?

19 A. Well, you know, no. But given that
20 people for years have talked about trying to offer
21 this.

22 Harrah's was another customer that
23 talked about trying to get all of their properties
24 across the country to have one player's club, and
25 they've talked about it.

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1 It's, you know, a standard thing
2 that's known in the industry. And given that
3 Circus had six or seven other properties, most of
4 which use CDS, you know, if we wanted to be able to
5 interoperate down the road, at some future date,
6 you know, the trick is not to paint yourself into a
7 corner.

8 Even if it's not a requirement now,
9 you try to make your system as flexible as you
10 can.

11 For instance, there's no
12 requirement -- and I don't believe Acres has sold
13 a system yet that interoperates with ACSC or has
14 taken on a property that's previously had an ACSC
15 system.

16 Q. It says here -- I'm sorry.

17 A. But we designed the system to be able
18 to work with those cards as well.

19 Q. It says here in the second sentence:

20 "This means not only do we
21 have to read CDS cards but at
22 least when communicating to the
23 player tracking system, we have
24 to decode them as the same
25 number as CDS."

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1 A. Yes.

2 Q. What does that mean?

3 A. Well, again, in November, not having
4 had discussions with Tom Bodenstab as to how the
5 system was supposed to work, I was basically
6 guessing what we would have to do to try and
7 interface with him.

8 And potentially, if he had one AS/400
9 system for seven Circus properties and we were
10 going to have to read those cards, we'd have to
11 somehow decode it to the same number.

12 Q. So was it your understanding that to
13 do that, based on your knowledge of the way that
14 decoding was done at CDS, that you would have to
15 use that same algorithm?

16 MR. RIEDINGER: Objection. Assumes
17 facts not stated.

18 THE WITNESS: When we talked with
19 Tom, we found out basically that it wasn't a
20 requirement and that we couldn't do it.

21 BY MR. DOWELL:

22 Q. What I am asking is: When you wrote
23 this, was it your understanding that you were going
24 to have to use the algorithm that CDS used to
25 decode CDS cards?

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1 A. No. Specifically, I said in here
2 that I could do it without using knowledge acquired
3 as proprietary.

4 Q. How would you do it without using
5 proprietary information?

6 A. How we actually did it in the working
7 system that we finished was we had the Bodenstag
8 system send us both numbers.

9 Q. Did you contemplate that being the
10 solution when you wrote this in November of '98?

11 A. I wish I was that good. This was
12 more: Here are our problems. Let's talk about
13 them.

14 I don't know that I recommended a
15 solution. The only solution that I really
16 recommended is that we had to use 20 character
17 fields if we were going to, you know, guarantee to
18 work with every card.

19 Q. This says:

20 "This means not only do we
21 have to read CDS cards, but at
22 least when communicating to the
23 player tracking system, we have
24 to decode them as the same
25 number as CDS. This isn't

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1 really hard..."

2 And then, you go on. Well, no. You
3 say:

4 "This isn't really hard, and
5 I don't have to use knowledge
6 acquired when I was an employee
7 there that they can claim is
8 proprietary to do this. But it
9 wasn't something we considered
10 or mentioned to Circus when
11 discussing the player tracking
12 system."

13 Now, when you say, "This isn't really
14 hard," aren't you referring to the decoding?

15 A. Well, if I decoded it using the
16 algorithm, then that obviously would be
17 proprietary.

18 In fact, we found it wasn't hard, for
19 instance, by using two numbers. I was sure there
20 was a work-around. I just didn't know what it was
21 at this time.

22 Q. You knew it wasn't really hard, but
23 you didn't know how to do it?

24 A. How to do it, no.

25 And again, right in there, I state

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1 that I have no intention of using that algorithm.

2 Q. Was there a lot of pressure during
3 this time, in November, to come up with this system
4 that could read CDS cards?

5 A. No. This is me, more or less, trying
6 to come up with the right way to do it.

7 Whenever you're designing something
8 like this, you want to handle as many possible
9 cases as you can.

10 And for instance, let's just say I
11 didn't handle the separator character. What that
12 would mean is we could potentially install the
13 system at 20 or 30 casinos and all the sudden found
14 out that we needed to do something with the
15 separator character. And at that point, it's an
16 entirely terrible mess to go back and try to modify
17 all these systems out there and upgrade everything
18 and make it all fit.

19 And so, the best way to do it is when
20 you're doing the design is try to come up with
21 every possible problem that you can see and work
22 around it so that you don't have these things come
23 up and hit you and require rework.

24 Q. It was different from that at
25 Mandalay Bay. It wasn't just anticipating, you

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1 know, future needs.

2 Wasn't it more you had to make it
3 work with CDS cards?

4 MR. RIEDINGER: Objection.
5 Argumentative.

6 THE WITNESS: Specifically having
7 been at CDS, I know that CDS does not use this
8 separator or dash character.

9 If all I was interested in doing was
10 trying to operate with just CDS cards, I wouldn't
11 have even put in that. This was a more general
12 approach to: Here's all the problems out there.

13 It wasn't really in response to any
14 particular pressure.

15 Again, as I mention in here, I said,
16 "We never even considered it or discussed it with
17 Circus."

18 BY MR. DOWELL:

19 Q. Did there ever come a time when
20 Circus informed anyone at Acres, to your knowledge,
21 that the Mandalay Bay system would have to be able
22 to read CDS coded cards?

23 A. No. The only thing that we knew was
24 that we had to operate with Tom Bodenstag, who
25 previously had used CDS encoded cards.

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1 Q. If I went over to Luxor and got a
2 player card and took it over to the Mandalay Bay,
3 would it work?
4 A. You're asking my opinion, and I will
5 give you my judgment on it.
6 I'd say 10 percent.
7 Q. Okay.
8 A. What happens is that, apparently,
9 there's an overlap. But for instance, there's
10 maybe a million customers at Luxor, I don't know.
11 There's maybe half a million customers at Mandalay
12 Bay. And some fraction of those two populations
13 intersect. Apparently, there are some of the same
14 numbers. But I don't think they all intersect.
15 Again, this is something you'd need
16 to test.
17 Q. But it wasn't part of the system
18 design, from your standpoint, to make something
19 like that happen intentionally?
20 A. No. In fact, as I said, we had it
21 happen accidentally and considered it a bug.
22 Q. When you were communicating with the
23 player tracking system, why did you have to decode
24 numbers the same as CDS, like it says here in
25 Exhibit 313?

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1 MR. RIEDINGER: Asked and answered.
2 THE WITNESS: Well, if we had to use
3 the same interface as CDS, if Tom Bodenshtab
4 couldn't modify his system in any way, shape, or
5 form, and he was talking to a bunch of CDS systems
6 at an arbitrary number of casinos, and we were
7 going to plug in there just like we were a CDS
8 casino, we'd have to do that.
9 And we didn't do that, he didn't ask
10 us to, we didn't need to, it didn't happen.
11 BY MR. DOWELL:
12 Q. Are you familiar with the term
13 "casino management system"?
14 A. I believe that's what Tom Bodenshtab
15 calls his system.
16 (Exhibit 314 was marked for
17 identification.)
18 BY MR. DOWELL:
19 Q. Mr. Dempsey, I will give you a
20 document I am marking as Exhibit 314.
21 Could you look through that. It is
22 Bates Nos. 3006624 through 3006634.
23 Could you look through that, and see
24 if you recognize the document.
25 A. Which piece?

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1 Q. Well, any of them. I will represent
2 that it was produced together. I don't know that
3 it -- and it is consecutively Bates numbered.
4 I don't know that it belongs together.
5 A. I am going to believe that the page
6 marked 3006628 looks to have my handwriting on it.
7 I think that's my handwriting.
8 And 6629, that really looks like my
9 handwriting.
10 This document, just as a definition,
11 is part of an Acres proprietary source file that
12 defines the network packet that comes up from the
13 card reader SMIB.
14 Okay. 3006631 looks to be a database
15 schema from the Acres player tracking cash from
16 some unknown date. You know, it changed over
17 time.
18 And 6632 is the completed ratings
19 table, and 6633 is card-in table. The card-in
20 table is certainly not current as of when I left.
21 I don't know that I have ever seen
22 6634, 6624, 6625 through 27 before. I certainly
23 didn't prepare them.
24 This could be Perry's work. I'm not
25 certain who prepared these or why.

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1 Q. I believe these came from your
2 files.
3 Does it look like something that you
4 have seen before?
5 A. I actually don't recall the documents
6 that I discussed, mentioned.
7 Again, Perry and I had a player
8 tracking file. It could be that our stuff got
9 mixed up.
10 Q. Referring to 3006625.
11 A. 25, okay.
12 Q. Can you tell what this is?
13 A. It looks to be a summation or a
14 redoing of the information in the Oasis document
15 that starts with 3006319. Neil Spencer Exhibit
16 453. Again, one of the documents in that
17 collection.
18 Q. What do you mean by "a redoing"?
19 A. Well, it looks to have the same
20 information.
21 If you're looking at that 6625 field,
22 and I go back to -- well, I guess it isn't quite
23 what I thought.
24 There are certain similarities
25 between 6625 and this other document, 3006312.

1 Q. Could you walk me through what the
2 similarities are that you see?
3 A. Well, for instance, it says, "primary
4 OCR number" in both places. It says, "primary
5 player last name" in both places.
6 Q. Where do you see? Okay.
7 A. "Primary player first name. Primary
8 alias."
9 I mean, almost all of them go right
10 from one to the other.
11 Q. So it looks like someone copied out
12 of the Casino Data Systems engineering
13 specification these field names into this spread
14 sheet on document 3006625?
15 A. Yeah. And it's even labeled
16 "Oasis - AS/400 Transactions."
17 Q. You understand that refers to the --
18 A. I assume it's describing the Oasis
19 400 transactions in this document.
20 Q. That is the June -- I think it's the
21 June 29th, 1998 engineering specifications from
22 Casino Data Systems?
23 A. What is that?
24 Q. You said -- you said you assume it's
25 describing the Oasis 400 transactions in this

1 document, and I just wanted to confirm that the
2 document you were referring to is the June 29th,
3 1998 engineering specifications?
4 A. Yeah. I swear, there's a header page
5 or something missing off that.
6 Q. But --
7 A. Yes.
8 Q. Maybe we can identify it from Bates
9 No. 3006312.
10 A. Looks good to me.
11 Q. What do those checkmarks represent,
12 as far as you can make it out?
13 A. It looks like a mapping. It looks
14 like the same information, basically, as in pages
15 3006312 through 3006316 in a different format.
16 Q. How come some of the boxes are
17 checked and some aren't? I don't understand how
18 that works.
19 MR. RIEDINGER: Objection.
20 Foundation.
21 MR. DOWELL: Let me back up.
22 BY MR. DOWELL:
23 Q. Do you have any understanding as to
24 what these checkmarks -- let's go back even
25 farther.

1 Do you know what these columns across
2 the top represent?
3 A. It looks like there's a one-to-one
4 correspondence between the types of messages or the
5 headings in the other CDS document as here.
6 Q. So --
7 A. So where we talked before about CDS
8 have eight transactions, I see here eight columns
9 with the same headings.
10 Q. Okay. I am with you.
11 So it looks like each column is a
12 different message format, is that correct, that was
13 used by CDS and is early shown by CDS in its
14 engineering specifications?
15 A. Again, I would probably call it
16 Bodenstab, but yes.
17 Q. On the document, it says, "CDS."
18 A. The document is labeled "CDS."
19 Q. So you have the eight columns, and
20 does it appear that it is checked off in each row
21 where the particular field is used in the message
22 format?
23 A. Well, it doesn't look complete.
24 For instance, on page 3006314, at the
25 top of the page, under "Change primary OCR number,"

1 I see something that says, "PCID," post account
2 number, on the CDS document. And I don't see
3 that -- wait a minute. Yeah, there's there.
4 That's okay.
5 Q. You found it on 3006314 under the --
6 A. What I am trying to come to grips
7 with here is that I see four checkmarks in the
8 "Change OCR," which I chose because there is the
9 smallest number of checked boxes. And so, it looks
10 like there's four fields.
11 Q. Okay.
12 A. But when I look at 3006314 at the
13 "Change OCR," it looks like there's considerably
14 more than four fields.
15 And so, I don't know why, if someone
16 was trying to match these, they didn't do a more
17 thorough job.
18 But it looks pretty close. Maybe
19 they decided to leave out some for a reason.
20 Q. It looks like they left out like
21 "Record Created Date," didn't they?
22 A. Yeah. "Record Created Date." It
23 looks like they left out the first four -- they
24 left out the first four, for some reason.
25 Q. Could it be that they're common to

1 all the message formats?
 2 A. Are they? Oh, maybe that could be
 3 it.
 4 Q. So it appears that someone went
 5 through and did a fairly detailed analysis of what
 6 is shown in the Casino Data Systems engineering
 7 specification?
 8 A. Yes.
 9 MR. RIEDINGER: Objection. It lacks
 10 foundation.
 11 THE WITNESS: You're asking for my
 12 opinion.
 13 BY MR. DOWELL:
 14 Q. Based on your knowledge of the
 15 development work that went into the Acres system
 16 and your knowledge of software programming and the
 17 procedures that someone goes through in developing
 18 software, does it appear to you that someone went
 19 through and looked at and closely analyzed the CDS
 20 engineering specification shown in Spencer 453?
 21 MR. RIEDINGER: That certainly calls
 22 for an opinion.
 23 THE WITNESS: I will second his
 24 objection, why not.
 25 But I mean, yeah, I guess it does.

1 I certainly didn't do it. I knew better.
 2 BY MR. DOWELL:
 3 Q. Why did you know better?
 4 A. Well, having been in this business
 5 almost 20 years, I didn't need to do this much work
 6 to show what this shows, which is it's horrible.
 7 There's a whole bunch of transactions
 8 using all sorts of different fields. It's very
 9 confusing.
 10 The Acres method where we just have
 11 three messages is better.
 12 As an aside, I don't know if they did
 13 this in Excel or not, but I don't even know how to
 14 make one of those check boxes. They certainly look
 15 computer done. They're too accurate to be done by
 16 hand.
 17 Q. So it appears somebody else is guilty
 18 of making this chart, then?
 19 MR. RIEDINGER: Objection. Assumes
 20 facts not testified to --
 21 THE WITNESS: Certainly not me.
 22 MR. RIEDINGER: -- and I object to
 23 the phrase "guilty." It's certainly argumentative,
 24 in the least.
 25 THE WITNESS: However, I will

1 definitely say, on 6628, that is my handwriting.
 2 BY MR. DOWELL:
 3 Q. So it appears -- if these documents
 4 were in a file that were together, meaning whatever
 5 we received, this spreadsheet was right next to the
 6 document with your handwriting, would it appear
 7 that someone provided this spreadsheet to you for
 8 your file?
 9 MR. RIEDINGER: Objection. Calls for
 10 speculation.
 11 THE WITNESS: I mean, I don't know
 12 how it got there.
 13 I mean, I picked up whatever was in
 14 my file, the dregs, when I was leaving. The stuff
 15 that appeared might be required for this testimony,
 16 and gave it to Acres counsel.
 17 And whatever was in the player
 18 tracking folder, he got. Whatever seemed to be in
 19 there. And I made no attempt to characterize it,
 20 and I don't recall ever having seen it before.
 21 MR. RIEDINGER: I will note for the
 22 record that it's counsel for CDS who characterized
 23 this material as having been in Mr. Dempsey's
 24 file. It's not the testimony of the witness.
 25 ///

1 BY MR. DOWELL:
 2 Q. I asked you if it looked like someone
 3 had gone through and closely analyzed the CDS
 4 engineering specification. You said that it did,
 5 or you said, "I guess it does."
 6 A. I'm not convinced they did a complete
 7 job or why they left out those four fields or
 8 whatever, but it looks like they took some time.
 9 Q. You said, though, that you knew
 10 better.
 11 A. Uh-huh.
 12 Q. I would like to ask you some more
 13 about what you meant by that?
 14 MR. RIEDINGER: Asked and answered.
 15 MR. DOWELL: Let me ask my question,
 16 and we'll see.
 17 MR. RIEDINGER: You have asked him
 18 what he meant by that. It was expressly requested.
 19 MR. DOWELL: No, I didn't. We will
 20 let the record speak for itself on that.
 21 BY MR. DOWELL:
 22 Q. You said that having been in the
 23 business for 20 years, you didn't need to do this
 24 much work to show that, apparently, your belief
 25 that the Casino Data Systems specification was

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1 horrible, correct?
 2 A. Yes.
 3 Q. What I want to ask you is: When you
 4 say you knew better, were you also referring to
 5 that you knew better than to take proprietary CDS
 6 information and analyze it for Acres' purposes?
 7 A. Well, I still don't know that this is
 8 proprietary CDS information. It says CDS on it,
 9 but it refers to the Bodenstab interface.
 10 But as far as analyzing it, every
 11 message you implement between systems takes time.
 12 The fewer messages you need to implement, the
 13 better off you are.
 14 If I can, in effect, implement three
 15 messages and implement a player tracking interface
 16 versus, let's just arguably say nine, you'd expect
 17 that the first one would take one-third the time,
 18 have one-third the bugs and take one-third the
 19 testing effort.
 20 So it would seem that this approach,
 21 just from looking at this CDS document, would be
 22 three times, roughly, three times slower, buggier,
 23 and harder to implement.
 24 So I would then never go through some
 25 sort of detailed analysis. I would never analyze

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1 something I never wished to implement.
 2 Q. Doesn't it appear, based on your
 3 knowledge of software programming and what is in
 4 these documents we're discussing, that someone has
 5 reviewed the CDS engineering specification so that
 6 they could make something better and improve upon
 7 it?
 8 MR. RIEDINGER: Objection. Calls for
 9 an opinion, the question is argumentative, and it's
 10 asked and answered.
 11 THE WITNESS: I am not sure how
 12 having these two documents would lead someone to a
 13 better design.
 14 If I look at a Van Gogh, I can't
 15 paint something better. It has to be in me. If I
 16 look at a bad design and come up with something
 17 better, it needs to come from within me.
 18 BY MR. DOWELL:
 19 Q. But if you look at a hole, you know
 20 to step around it, right?
 21 MR. RIEDINGER: Objection. That
 22 question is argumentative.
 23 THE WITNESS: It's not necessarily
 24 obvious, at least to the person at CDS or Bodenstab
 25 that designed this, that it was a hole.

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1 MR. RIEDINGER: Mr. Dowell, it is
 2 apparent that you are trying to get the witness
 3 with these argumentative questions to change his
 4 testimony. You know that that's improper.
 5 I request that you refrain from doing
 6 so. Simply ask questions that you can get
 7 answers. But to argue with the witness to suggest
 8 that he might have some different testimony is
 9 completely improper.
 10 MR. DOWELL: I am, in fact, not
 11 trying to get the witness to change his testimony.
 12 We're quite content with what he's got, and I am
 13 just trying to get yet more.
 14 MR. RIEDINGER: You are, in fact,
 15 arguing with the witness and suggesting that he
 16 should give different answers. That is expressly
 17 what your questions are.
 18 MR. DOWELL: No, they are not, and we
 19 will let the record speak for itself on that.
 20 BY MR. DOWELL:
 21 Q. Earlier, I asked about what you meant
 22 when you said you knew better, and I asked if you
 23 were referring to that you knew better than to take
 24 proprietary CDS information and analyze it for
 25 Acres purposes.

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1 And you said that the approach of
 2 looking at the CDS document would be three times
 3 slower, buggier, and harder to implement, so that
 4 you would never go through some sort of detailed
 5 analysis of the CDS document.
 6 MR. RIEDINGER: This is the second
 7 time you have read that answer back to him.
 8 MR. DOWELL: No, it's not.
 9 MR. RIEDINGER: Yes, it is.
 10 MR. DOWELL: No, it's not.
 11 MR. RIEDINGER: I am not going to
 12 argue with you.
 13 MR. DOWELL: You are arguing with me
 14 on it.
 15 MR. RIEDINGER: I am just placing my
 16 statement on the record, and you proceed.
 17 MR. DOWELL: I am arguing with you
 18 about it, and if you choose to repeat your
 19 statement, then I will repeat my argument.
 20 MR. RIEDINGER: Please, please,
 21 settle down, Mr. Dowell.
 22 MR. DOWELL: You need to settle
 23 down. I don't know why you are being so agitated
 24 about this.
 25 MR. RIEDINGER: Calm down.

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1 MR. DOWELL: What is not calm about
2 what I am doing?
3 MR. RIEDINGER: Please just proceed
4 to ask your questions.
5 MR. DOWELL: Okay. I will.
6 BY MR. DOWELL:
7 Q. You stated you would never go through
8 some sort of detailed analysis.
9 My question, though, was: When you
10 said that you knew better, were you also referring
11 to you knew better than to take proprietary
12 information from CDS?
13 MR. RIEDINGER: Objection. Asked and
14 answered.
15 THE WITNESS: Yeah. I am going to
16 have to object and say asked and answered on that
17 one too.
18 I don't characterize this as
19 proprietary information from CDS, first of all. It
20 refers to a Bodenstag interface.
21 Yes, it's a CDS document. As I said
22 before, Bodenstag does not have a documentation
23 department. I find no reason to believe that this
24 would not be Bodenstag's information as much as
25 CDS.

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1 MR. RIEDINGER: The question also
2 assumes that the information is proprietary to
3 someone, which, of course, is not, in fact,
4 testified to.
5 BY MR. DOWELL:
6 Q. Didn't you testify earlier that
7 packet formats were proprietary information?
8 A. Packet formats? I don't recall.
9 Certainly, some packet formats may be proprietary.
10 Q. Does the information shown on
11 3006314, in fact, show packet formats?
12 A. That appears to show packet formats.
13 It sure does.
14 Because some packet formats may be
15 proprietary does not mean all packet formats are
16 not proprietary.
17 Q. Do you have any reason to believe
18 that the packet formats shown in 3006314 are not
19 proprietary?
20 A. I can't characterize it without
21 knowing who created them and why.
22 Q. So is your answer "No"?
23 A. The answer is: I can't answer -- I
24 can't tell you whether I think they're proprietary
25 or not without more information than this

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1 document.
2 Q. And Casino Data Systems is Acres'
3 primary competitor?
4 MR. RIEDINGER: Objection. Calls for
5 an opinion.
6 THE WITNESS: I would say that the
7 primary competitor to CDS would be IGT or Bally,
8 both of which have more installed systems than
9 Acres.
10 BY MR. DOWELL:
11 Q. Do you know approximately how long it
12 took CDS to develop its gaming software -- or,
13 gaming and slot machine control system?
14 A. I believe the company was founded
15 sometime around three or four years before I joined
16 it. Sometime in that time.
17 Q. So how long did it take CDS to
18 develop -- let me ask you this.
19 Can you estimate in engineering
20 man-hours how long it took CDS to develop its
21 software or slot machine control system?
22 MR. RIEDINGER: Objection. Calls for
23 speculation.
24 THE WITNESS: That's really hard.
25 You can estimate how long it would

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1 take to do a piece of software. CDS didn't just do
2 this. It did an early investigation and then
3 upgraded it and upgraded it and upgraded it, and
4 you know, that is basically impossible to estimate.
5 BY MR. DOWELL:
6 Q. So you can't give a reasonable
7 estimate of that?
8 A. No. Predicting software development
9 time is an incredibly hard task.
10 Q. How about the time it took Acres to
11 develop its Wizard system?
12 A. Well --
13 MR. RIEDINGER: That's not a
14 question. That's a statement.
15 BY MR. DOWELL:
16 Q. Can you give a reasonable estimate of
17 the time it took Acres to develop its Wizard
18 system?
19 A. I can given the same sort of estimate
20 I gave in answer to the CDS question.
21 Acres has been in business longer and
22 developed the first on-line slot system. It's been
23 upgrading it from there. So, you know, sometime
24 in, what, an extra year or two more than CDS.
25 I mean, certainly many of the

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1 database schema formats are an upgrade of the
 2 previous Paradox system and/or the work they did
 3 with IGT.
 4 Q. Who else at Acres, to your knowledge,
 5 had access to the Casino Data Systems engineering
 6 specifications that starts at Bates No. 3006309?
 7 A. I would assume from the time I
 8 received the document from Pat Powers that it would
 9 probably be myself and Perry Waldner.
 10 As to who might have seen it before
 11 Pat gave it to me, I have no knowledge of, and my
 12 file cabinet wasn't locked, so presumably, someone
 13 could have gotten in and seen it. But I pretty
 14 much believe it gathered dust.
 15 Q. It wasn't gathering dust when someone
 16 made the spreadsheet in 3006625, correct?
 17 MR. RIEDINGER: Objection. It's
 18 argumentative.
 19 THE WITNESS: We don't know whether
 20 this was created before or after I got the document
 21 and by whom.
 22 We don't even know that someone at
 23 Acres created it.
 24 BY MR. DOWELL:
 25 Q. Do you know what those numbers down

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1 the one column there mean, "Type 10-A, 15-A, 15-A,
 2 1-A"?
 3 A. They look to match the column, "Bytes
 4 Required" in the CDS document. In data format.
 5 Q. Could one use this chart that is
 6 shown in 3006625 to come up with fewer message
 7 formats for a system?
 8 MR. RIEDINGER: Objection. Calls for
 9 speculation.
 10 THE WITNESS: Someone could do
 11 anything. I can't -- I don't know.
 12 I mean, it wouldn't help me. I can
 13 answer it that way. In fact, these documents
 14 really are the same as this one, just in different
 15 format.
 16 BY MR. DOWELL:
 17 Q. Someone has just manipulated the
 18 date?
 19 A. Yeah. It looks like they pretty much
 20 put it in a different format, you know,
 21 word-for-word.
 22 Q. These type of message formats, I
 23 think you said Acres ended up using three message
 24 packets?
 25 A. Yes, that's correct. For the player

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1 tracking interface.
 2 Q. For the player tracking interface?
 3 A. They used probably hunks for, you
 4 know, the rest of the system, one of which is
 5 actually documented in 3006628.
 6 Q. The message packets for the player
 7 tracking interface, where do those packets of
 8 information travel with respect to that?
 9 A. They travel from BIF to whatever
 10 matching piece of AS/400 code receives them.
 11 Q. So at Mandalay Bay, that is the
 12 Bodenstab software?
 13 A. Yes.
 14 MR. RIEDINGER: Objection. Assumes
 15 facts not testified to.
 16 BY MR. DOWELL:
 17 Q. Now, your statement says that
 18 sometime in 1998 was when Mr. Powers provided you
 19 with the CDS documents that we have been
 20 discussing.
 21 A. That's correct.
 22 Q. Can you be more specific on when in
 23 '98 that was?
 24 A. It was relatively soon after I
 25 started and presumably before Perry Waldner was

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1 hired. So I would guess it would be in the month
 2 of September.
 3 MR. DOWELL: Why don't we take a
 4 break.
 5 (There was a recess taken.)
 6 (Exhibit 315 was marked for
 7 identification.)
 8 BY MR. DOWELL:
 9 Q. I will give you a document that I
 10 have marked as Exhibit 315. It appears to be an
 11 Acres document with the title "Player Tracking
 12 Interface Specification, Version 1.07," Bates
 13 No. 3006579 through -96.
 14 Could you describe what this document
 15 is?
 16 A. This appears to be a player tracking
 17 interface specification, Version 1.07.
 18 Q. What is that?
 19 A. This looks to be the description of
 20 the Acres interface between Bodenstab and Acres.
 21 Yeah.
 22 Q. So if I wanted to compare Acres
 23 interface with CDS's interface, could I compare
 24 this document with what is in Spencer 453?
 25 MR. RIEDINGER: Objection. Assumes

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1 facts contrary to his testimony.
 2 THE WITNESS: Could I hear that
 3 question again.
 4 BY MR. DOWELL:
 5 Q. If I wanted to compare Acres'
 6 interface with CDS's interface, could I compare
 7 this document, Exhibit 315, with the documents we
 8 talked about in Spencer 453?
 9 MR. RIEDINGER: Same objection.
 10 THE WITNESS: I don't know if it
 11 would be everything you would need, but it would be
 12 a good start.
 13 BY MR. DOWELL:
 14 Q. Is this document marked proprietary
 15 by Acres?
 16 A. I see on the second page, it is.
 17 Yeah. It looks to be.
 18 Q. Does this document show message
 19 package formats that Acres uses in its interface?
 20 A. Yes.
 21 Q. Where are those shown?
 22 A. Let's see. Under item 4, "Message
 23 Formats," which would be page 10.
 24 Q. So starting at page 10 and on back in
 25 the document, correct?

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1 A. Yes.
 2 Q. These are all marked "Proprietary and
 3 Confidential Information of Acres Gaming," correct?
 4 A. That's what is on this document now.
 5 Q. So is it your understanding from
 6 looking at that, Acres considers these message
 7 formats proprietary?
 8 MR. RIEDINGER: Asked and answered.
 9 THE WITNESS: I don't know who put
 10 that on there.
 11 BY MR. DOWELL:
 12 Q. My question is whether it was your
 13 understanding from reading this and based on your
 14 knowledge in the industry whether Acres, and your
 15 knowledge from your experiences at Acres, whether
 16 Acres would consider these messages to be
 17 proprietary?
 18 MR. RIEDINGER: You just asked that
 19 question; he just gave you an answer.
 20 MR. DOWELL: The answer he just gave
 21 me was he doesn't know who put that on there. That
 22 is not responsive to my question.
 23 Q. Please answer again.
 24 MR. RIEDINGER: You asked that
 25 question, and he gave that answer.

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1 MR. DOWELL: So your objection is
 2 that it was asked and then answered?
 3 MR. RIEDINGER: That's correct.
 4 MR. DOWELL: So is it your position
 5 that his answer, "I don't know who put that on
 6 there" was responsive to my question?
 7 MR. RIEDINGER: Yes, the answer was
 8 responsive to your question.
 9 I don't know why you're doing this.
 10 I put an objection on the record, and you can
 11 proceed to your next question.
 12 MR. DOWELL: Because when your
 13 objections are ground -- when you have grounds for
 14 your objection, I correct my questions. When you
 15 don't, I ignore them. When they're nonsensical, I
 16 have to ask questions to figure out what you're
 17 talking about.
 18 MR. RIEDINGER: Please just proceed
 19 and ask questions. We don't have to go through
 20 this.
 21 THE WITNESS: Let me just jump in
 22 here.
 23 I see on the bottom of this a Bates
 24 stamp, I see a message that says, "Proprietary
 25 Message." All three are in a different font and

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1 format from the rest of the document.
 2 I don't know whether any of these
 3 stamps was put on at the time of document
 4 preparation or by whom. This is a copy I am
 5 looking at. I can't tell.
 6 I am trying to be responsive.
 7 BY MR. DOWELL:
 8 Q. I will represent that the mark that
 9 has the court's number on it and that Bates number,
 10 the 30065379, and on up document, those were put on
 11 by the attorneys afterwards.
 12 Have you ever seen any Acres
 13 documents that were marked with this information in
 14 the footer starting on the second page that says:
 15 "This document contains
 16 proprietary and confidential
 17 information of Acres Gaming,
 18 Inc., not to be used, copied or
 19 disclosed without written
 20 permission. All rights
 21 reserved?"
 22 A. Certainly, Acres uses proprietary
 23 footers or stamps on some documents. And
 24 certainly, I have seen them. I don't know if this
 25 is the exact format they use.

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1 Q. Irrespective of this statement on the
2 document, which you may take as you will or
3 disregard if you choose, my question is: Does
4 Acres consider, based on your experiences at Acres,
5 the message formats shown in this document from
6 page 10 back to page 18 proprietary information?
7 MR. RIEDINGER: Asked and answered.
8 THE WITNESS: This document would be
9 absolutely useless unless it was shared with
10 whoever was implementing the interface. So
11 certainly, it needs to go outside of Acres.
12 So I would consider that they
13 wouldn't consider it as proprietary as, say,
14 message formats that they use internally to some of
15 their bonusing systems, which they absolutely
16 consider proprietary.
17 BY MR. DOWELL:
18 Q. So they consider it somewhat
19 proprietary but not as proprietary as some other
20 things?
21 MR. RIEDINGER: Is that a question?
22 MR. DOWELL: Yes, it is.
23 MR. RIEDINGER: It's phrased as a
24 statement, so I object.
25 THE WITNESS: I didn't characterize

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1 this document, and I am not certain how, say, the
2 legal department or my boss would characterize it.
3 BY MR. DOWELL:
4 Q. Would you agree with me that the
5 pages 10 through 18 have a designation on them --
6 A. Absolutely.
7 Q. -- that says:
8 "This document contains
9 proprietary and confidential
10 information of Acres Gaming,
11 Inc.?"
12 A. Absolutely.
13 Q. The first one on page 10 is a player
14 message.
15 A. Uh-huh.
16 Q. Could you look at the Spencer 453,
17 and tell me if that message corresponds with any of
18 the messages shown in the Casino Data Systems
19 engineering specification?
20 MR. RIEDINGER: Objection. Assumes
21 facts not testified to, and contrary to the past
22 testimony. Also is ambiguous, the term
23 "corresponds."
24 BY MR. DOWELL:
25 Q. You can answer.

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1 A. There is no correspondence.
2 The interfaces are completely
3 different in the following method.
4 The CDS interface is apparently
5 encoded in this document, is designed to
6 synchronize two databases.
7 So for instance, a player enrollment
8 message and the account change information and the
9 change OCR message and the primary, secondary --
10 perhaps the primary-secondary player points message
11 is all designed to adjust and keep the two sides in
12 sync.
13 Whereas, on page 10, the player
14 message in the Acres system, it has no particular
15 reason for being sent. And whenever it is sent, it
16 overwrites whatever exists on the Acres cash.
17 So it doesn't synchronize the two.
18 It just drops in there. If there was no record in
19 there, it will be there. And regardless of whether
20 an OCR number was changed, someone got married, the
21 name changed, regardless of that they got a new
22 card number, who knows, we have no clue of that,
23 unlike the CDS document. This message just comes
24 in, and we believe it. There is no synchronization
25 issue.

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1 Q. Does the Acres interface
2 specification require fewer message packets because
3 it only sends information one way?
4 A. Well, information goes in both
5 directions, but, you know, the player information
6 certainly only goes one way, and the ratings only
7 go the other way. There's no attempt to do any
8 kind of synchronization or anything or maintain
9 equal or compatible bases.
10 Q. That is a good point. Let me ask the
11 question differently, then.
12 Because there is no synchronization
13 aspects, does the Acres' interface require fewer
14 message packets than the CDS interface?
15 A. That's one reason, yes.
16 Q. Are there any other reasons?
17 A. Yes. For instance, the completed
18 ratings message in the Acres system is merely an
19 indication that something has happened that
20 developed a ratings, which is a common gaming term,
21 going back to table games, on the player's side.
22 For instance, it could be a jackpot,
23 it could be a hand-pay, it could be a bonus, it
24 could be just a normal play.
25 Whereas, for instance, over on this

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1 document, it appears there's multiple messages of
 2 all different sorts of kinds to do the same thing.
 3 So, again, there's no exact
 4 correspondence between how they work.
 5 Q. Referring to the front page --
 6 A. Of which document?
 7 Q. Of Exhibit 315.
 8 A. Uh-huh.
 9 Q. Under "Revision 1.03," on
 10 December 4th, 1998, it says:
 11 "Change to format of original
 12 player tracking interface
 13 specification."
 14 Do you know what that means?
 15 A. It doesn't make much sense to me.
 16 I'm not certain how to interpret it better for
 17 you. I'd suggest Perry.
 18 You know what. It's coming back to
 19 me, actually. I remember, I think, what it was.
 20 You're going to think this was stupid.
 21 I remember Pat got very mad at Perry
 22 because Perry changed where the page numbers or
 23 headings were, and Perry literally had to go in and
 24 just adjust margins and stuff like that so it
 25 matched Pat's format.

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1 Q. Let me give you a document that has
 2 previously been marked as Bodensstab Exhibit 364.
 3 Is this an earlier version of the
 4 interface specification that we were just talking
 5 about?
 6 A. It looks to be.
 7 Q. It says in the box that it is Version
 8 1.01, but I see in the revision history that there
 9 is a 1.02.
 10 Does that make sense?
 11 A. Well, it looks like someone wasn't
 12 thorough one way or another and didn't update it
 13 properly.
 14 Q. Does this version of the interface
 15 specification include those message packets?
 16 MR. RIEDINGER: Objection. Ambiguous
 17 what you mean by "those message packets."
 18 THE WITNESS: Well, it certainly
 19 includes message packets. They're different.
 20 They've been modified as the versions have
 21 changed.
 22 In this document, Bodensstab 364, the
 23 message packets start on page 6 and are defined in
 24 a C language method rather than a sort of table
 25 method.

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1 BY MR. DOWELL:
 2 Q. Can you compare the way the message
 3 packets are defined in this July 9th, 1998 document
 4 with the way the message packets are defined in
 5 Version 1.07 that has a date of January 15th, 1999
 6 on it?
 7 A. It could take some time. I mean,
 8 obviously, I feel that that's probably something I
 9 could do.
 10 Q. Can you, in general terms, make that
 11 comparison?
 12 A. It looks somewhat similar in scope.
 13 I mean, if you look at the union on
 14 page 6, it shows four packets, and the parmdata is
 15 one that we chose not to use. The other ones are
 16 there. Their names have changed.
 17 Q. Why does it go from having this --
 18 what did you call this language?
 19 A. This is C.
 20 Q. C?
 21 A. C Plus Plus, actually.
 22 Q. Why did you go from the C Plus Plus
 23 language to kind of the spreadsheet box format that
 24 is in Version 1.07?
 25 MR. RIEDINGER: Objection. Assumes

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1 that he wrote it.
 2 THE WITNESS: I think you'd have to
 3 ask the author. I mean, I guess, Pat liked it one
 4 way, and Perry liked it the other.
 5 BY MR. DOWELL:
 6 Q. Whose format is whose, if you can
 7 tell?
 8 A. Well, on the older document that only
 9 has Pat Powers' name on it, it only shows the C
 10 format, and on the newer document, where the last
 11 three revisions are all Perry, it shows the box
 12 format.
 13 Q. So it appears that Perry --
 14 A. Liked boxes.
 15 Q. He also used -- he didn't use, I
 16 should say, the C Plus Plus format for describing
 17 the message packets?
 18 A. That's correct.
 19 Q. Now, sometime between this earlier
 20 version of the interface specification and this
 21 later version, the CDS interface specification was
 22 circulated at Acres, correct?
 23 A. I wouldn't know. I mean, the date of
 24 this is 7-14-98, which is before I was employed
 25 there, and I don't know when the CDS documents

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1 first came to Acres. It could be before or after.

2 Q. As far as the circulation that you
3 were aware of, whenever it was provided to you,
4 that was between July of '98 and January of '99?

5 A. Certainly, I saw the CDS document
6 after this was produced because I wasn't even
7 employed and before this one.

8 Q. When you say, "this," can you say
9 what you are referring to, for the record?

10 A. Excuse me. Before the earlier
11 version, which is 1.01, dated 7-14-98. And I
12 started in September, and I certainly saw the CDS
13 documents before the Exhibit 315, which is dated
14 1-15-99.

15 Q. Did you receive any kind of a
16 severance package when you left Acres?

17 A. I believe I got three days of
18 vacation that was due.

19 Q. And when did you leave Acres? I have
20 forgotten.

21 A. I believe my exit date was May 14th,
22 '99.

23 Q. Were there any conditions on
24 receiving the severance of vacation days? Did you
25 have to do anything or sign anything?

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1 A. Actually, employers are required by
2 law to pay vacation that's due.

3 Q. So there were no conditions?

4 A. No.

5 Q. All right. I think we are about
6 done.

7 I give you a document that has
8 previously been marked as Spencer Exhibit 450, and
9 that is dated June 8, 1998, so I know that that is
10 before your time at Acres.

11 If you could take a quick look at it,
12 I have a question about the third paragraph.

13 A. The third paragraph would begin
14 "Current thought"?

15 Q. Right. It says:

16 "Current thought is to have
17 Duane, Paula, and Scott, along
18 with others, to be designated
19 to act as the core of our
20 technical team which is managed
21 outside our engineering group.
22 This is to avoid infringing on
23 the development of bonuses
24 themselves."

25 What I wanted to ask you, and feel

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1 free to review as much of the document as you need
2 to, if you have an understanding of what is meant
3 there by "to avoid infringing on the development of
4 bonuses themselves."

5 A. Let me just take a second.

6 Q. Sure.

7 A. I think I can make an estimate of
8 what that means.

9 Acres at the time of this document
10 had offices in Corvallis, Oregon, and Las Vegas.
11 And the firmware and all of the bonuses, which are
12 in imbedded boxes, they're not in normal PCs, were
13 all developed up in Oregon.

14 And it looks like this was the
15 beginning of the decision to do the development of
16 the Wizard system here in Las Vegas rather than
17 using those people that were working up there in
18 Oregon.

19 And I actually don't know who Paula
20 and Scott are.

21 Q. Do you know what the word
22 "infringing" means?

23 A. "Infringing"? I have a layman's idea
24 of it.

25 Q. In the context of this sentence. Is

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1 that hurting feelings?

2 A. It probably means slowing down is how
3 I read it.

4 Q. Okay. I see what you mean. Thank
5 you.

6 Turn back to page 3003761.

7 A. Okay.

8 Q. In the middle of the page, it says,
9 "The sales effort."

10 Do you understand -- it appears this
11 is a document written by John Acres.

12 A. Yes.

13 Q. It says, "Sales effort." It says:

14 "But that isn't all. We have
15 to sell Circus. They believe
16 in bonuses. They don't like
17 the price. They also don't
18 know we have an accounting
19 system. They are worried that
20 our card readers are not
21 compatible with their existing
22 cards on the CDS systems.
23 (This is a concern because they
24 want players to be able to take
25 their card to ANY property and

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1 use it) and they don't want to
 2 throw away their CDS
 3 investment."
 4 Now, reading that, does it appears
 5 that Mr. Acres is reporting that Circus wanted to
 6 be able to use CDS cards at any property?
 7 MR. RIEDINGER: Objection. Calls for
 8 speculation, lacks foundation.
 9 THE WITNESS: It looks like they're
 10 equally worried that people couldn't take Mandalay
 11 Bay cards, which would be Acres format, to Luxor.
 12 It doesn't state which direction they're concerned
 13 about; just compatibility.
 14 BY MR. DOWELL:
 15 Q. Prior to reading this, were you
 16 aware -- had you ever heard that this was a
 17 concern of Circus?
 18 A. No. This is way above my level and
 19 before my time.
 20 People have certainly talked about
 21 doing cross-property for years.
 22 Q. During your work, that wasn't on your
 23 mind as a goal for the programming that you did?
 24 A. No. In fact, accidentally, as we
 25 discussed, where the Luxor cards work wrong at

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1 Mandalay Bay, because of events outside of Acres'
 2 control, if Circus ever would want to try and do
 3 cross-property, they would have to reissue
 4 potentially millions of dollars worth of cards.
 5 Q. Are you aware of any attempts to
 6 reverse engineer CDS products during your time at
 7 Acres?
 8 A. No. And if I was, I would have
 9 jumped up and down.
 10 Q. What is your understanding of reverse
 11 engineer?
 12 A. Well, there's basically two types of
 13 reverse engineering: legal and illegal.
 14 Reverse engineering is generally
 15 taking the end results of a system and trying to
 16 work back to original principles. And in some
 17 cases, this is reasonable and normal and is
 18 commonly done, say, for instance, if Acres lost an
 19 employee, and they had a card reader format, they
 20 may try to figure out what happened. Or if they
 21 lost the source code, they would actually try and
 22 go backwards. It's actually quite hard.
 23 Obviously, if you have a piece of
 24 software or hardware that contains proprietary
 25 information where they've asked you not to and you

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1 reverse engineer it, you could be guilty of some
 2 problem.
 3 Q. Are you required to have a gaming
 4 license in your role?
 5 A. CDS required me to have one.
 6 I don't recall Acres mentioning it as
 7 a requirement for employment. I do own one, do
 8 have one.
 9 Q. Have you ever been turned down for
 10 one?
 11 A. No.
 12 Q. Do you have any understanding of what
 13 it means for a system to be event-based versus
 14 meter-based?
 15 A. Some systems, like Bally's system,
 16 are nonrealtime systems. They are truly
 17 event-based in that unless something happens, you
 18 get no signal from the slot machine or SMIB.
 19 Other systems, you know, constantly
 20 get meters. I believe that's what that is.
 21 Whether an event happens or not.
 22 Q. Did you have contact with John Acres
 23 ever in your responsibilities at Acres?
 24 A. A couple times. I mean, he came into
 25 my office and saw me. He was actually quite

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1 surprised to see that I had been hired by Acres.
 2 Q. Why was that?
 3 A. Because I had worked with him
 4 previously at Gamma, and he, I guess, assumed that
 5 someone would have told him or asked him before
 6 they hired me.
 7 Q. What was Gamma?
 8 A. Gamma is the Gaming Manufacturers
 9 Association. And this is an association of
 10 manufacturers that, at least at one time, included
 11 CDS, IGT, Acres, and about 17 other companies that
 12 are working to come up with common, nonproprietary
 13 message protocols for everything so the equipment
 14 interoperates.
 15 Q. Has it been a goal in the past for
 16 some companies to have proprietary communication
 17 protocols so that systems are not compatible?
 18 A. The only one I can think of is IGT.
 19 Most of the time, it just causes trouble because
 20 you have to do things three or four times. The big
 21 guy likes to lock people out.
 22 Q. Have you ever heard the term "to
 23 midget a request"?
 24 A. "To midget a request"? I don't know
 25 that one.

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1 Is that Australian?
 2 Q. I don't know.
 3 Have you ever heard someone being
 4 referred to as wired?
 5 A. Wired? In the nontechnical sense,
 6 someone who has been like jiggy on coffee and, you
 7 know, vibrates.
 8 Q. Is there a technical sense or a use
 9 of the word within Acres that you have heard?
 10 A. Not within Acres, but I have also
 11 heard another meaning where you say someone is
 12 wired, i.e., they are hooked into stuff, maybe they
 13 are, you know, listening or have contacts or
 14 something.
 15 MR. DOWELL: All right. I have no
 16 further questions.
 17 MR. RIEDINGER: I have one short
 18 clarification.
 19
 20 EXAMINATION
 21 BY MR. RIEDINGER:
 22 Q. I would like to talk about the
 23 physical location of the Bodenstag and Acres
 24 software.
 25 First, the Bodenstag player tracking

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1 software. Does that reside on an AS/400 computer?
 2 A. Could you just say that again.
 3 Q. Does the Bodenstag player tracking
 4 software reside on an AS/400 computer?
 5 A. That's my information.
 6 Q. Where is that AS/400 located?
 7 A. I don't actually know. I think it's
 8 at the Luxor. I've never seen it.
 9 Q. Is it at the Mandalay Bay casino?
 10 A. No, it's not. It's somewhere across
 11 the network.
 12 Q. The Acres Wizard software, on what
 13 machine does that reside?
 14 A. The Acres Wizard software runs on a
 15 group of machines that are located in the Mandalay
 16 Bay computer room, in a large rack.
 17 Q. And is the Mandalay Bay computer room
 18 at the Luxor?
 19 A. Of course not.
 20 Q. How about the Acres-Bodenstab
 21 interface or BIF software, what machine does that
 22 reside?
 23 A. BIF runs in a little PC in the Acres
 24 rack.
 25 Q. In the Mandalay Bay control room?

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1 A. That's correct.
 2 MR. RIEDINGER: No further
 3 questions.
 4 MR. DOWELL: Thank you, Mr. Dempsey.
 5 (The deposition was concluded
 6 at 4:10 p.m.)
 7
 8 * * * * *

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1 CERTIFICATE OF DEPONENT
 2 PAGE LINE CHANGE REASON
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 16 * * * * *
 17 I, Martin Dempsey, deponent herein, do
 18 hereby certify and declare the within and foregoing
 19 transcription to be my deposition in said action;
 20 that I have read, corrected and do hereby affix my
 21 signature to said deposition.
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 24 Martin Dempsey, Deponent
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1 CERTIFICATE OF REPORTER

2

3 STATE OF NEVADA)

SS:

4 COUNTY OF CLARK)

5

6

7 I, Cynthia K. DuRivage, a duly
8 commissioned Notary Public, Clark County, State of
Nevada, do hereby certify:

9 That I reported the taking of the
deposition of the witness, Martin Dempsey,
10 commencing on Tuesday, July 13, 1999, at 9:20 a.m.

11 That prior to being examined the witness
was by me duly sworn to testify to the truth, the
12 whole truth, and nothing but the truth.

13 That I thereafter transcribed my said
shorthand notes into typewriting and that the
typewritten transcript of said deposition is a
14 complete, true and accurate transcription of my
said shorthand notes taken down at said time.

15 I further certify that I am not a relative
or employee of an attorney or counsel of any of the
parties, nor a relative or employee of an attorney
or counsel involved in said action, nor a person
16 financially interested in the action.

17 IN WITNESS WHEREOF, I have hereunto set my
hand in my office in the County of Clark, State of
Nevada, this ____ day of _____, 1999.

18

19

20

21

22

23 Cynthia K. DuRivage, CCR 451

24

25

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92:11	128:16	148:2				
148:10	158:21	209:25				
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Year's [1]	53:21					
yearly [2]	48:9					
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years [17]	8:23					
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yet [8]	8:21	42:17				
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1 William R. Urga
2 Nevada Bar No. 001195
3 Mark Rosencrantz
4 Nevada Bar No. 006475
5 JOLLEY, URG, WIRTH & WOODBURY
6 3800 Howard Hughes Parkway, 16th Fl.
7 Las Vegas, Nevada 89101
8 (702) 699-7500

9 Jerry A. Riedinger
10 Michael D. Broaddus
11 Mark G. Jackson
12 PERKINS COIE LLP
13 1201 Third Avenue, 40th Fl.
14 Seattle, WA 98101-3099
15 (206) 583-8888
16 Attorneys for Acres Gaming Inc.

17 UNITED STATES DISTRICT COURT

18 DISTRICT OF NEVADA

19 MIKOHN GAMING CORP.,

20 Plaintiff,

21 v.

22 ACRES GAMING INC.,

23 Defendant,

24 ACRES GAMING INC.,

25 Plaintiff,

26 v.

27 MIKOHN GAMING CORPORATION; NEW
28 YORK NEW YORK HOTEL & CASINO
DATA SYSTEMS; and SUNSET STATION
HOTEL & CASINO,

Defendants.

NO. CV-S-98-1383-HDM (LRL)
(Base File)

**REBUTTAL STATEMENT BY
EXPERT WITNESS WILLIAM K.
BERTRAM, PH.D**

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I. Introduction

I am William K. Bertram. I have been retained as an expert witness by Plaintiff Acres Gaming Inc. ("Acres") in the above-referenced action. I have previously submitted an Expert Witness Report, dated February 15, 1999, which I incorporate into this rebuttal statement. In that Report, I describe my technical background and qualifications, and I discuss my opinion that Defendant Casino Data Systems ("CDS") infringes at least claims 10 and 19 of U.S. Patent No. 5,752,882 ("the '882 patent").

I also previously submitted a declaration on May 20, 1998, demonstrating CDS's infringement of claim 10 of the '882 patent. I further submitted a second declaration dated October 5, 1998, demonstrating that the invention described and claimed in the '882 patent is neither taught nor enabled by published U.K. patent application GB 2151054A ("the U.K. '054 application"). I incorporate these declarations into this rebuttal statement. Finally, I have given testimony in my deposition of September 29, 1998, which addresses many of the positions I describe here.

II. Evaluation Summary of Mr. Prohofsky's Report

I have reviewed the Expert Witness Report of Leroy A. Prohofsky. I disagree with Mr. Prohofsky's conclusions, which he summarizes in § III of that Report. Specifically, I believe that claims 10 and 19 of the '882 patent are not anticipated by the Acres Concept III document. I also believe that claims 10 and 19 are not anticipated by the Form SB-2 registration statement submitted by Acres to the U.S. Securities and Exchange Commission. Further, as I demonstrated in my second Declaration, claim 10 of the '882 patent is not anticipated by the U.K. '054 application.

As stated in my Expert Witness Report of February 15, 1999, I have extensive experience

1 in gaming product design. I believe that one skilled in the art of gaming device design would not,
2 in 1993, have found it obvious to create the invention of claims 10 and 19 of the '882 patent given
3 the then current state of the art.

4 I believe that the claim terms "command" and "predetermined event" used in claims 10 and
5 19 of the '882 patent are not vague. Indeed, the '882 patent specification provides a number of
6 examples of such commands and predetermined events. These examples provide clarity to the
7 claim terms, not ambiguity or vagueness as erroneously maintained by Mr. Prohofsky. Further,
8 given the understanding of a person skilled in the art of gaming device design, the claim terms
9 "command" and "predetermined event" are well understood and unambiguous.

10 As I have previously demonstrated in my Report of February 15, 1999, I believe that at
11 least claims 10 and 19 of the '882 patent are infringed by CDS.

12 III. Analysis

13 A. Concept III and SB-2

14 The majority of Mr. Prohofsky's report asserts that the technical disclosure in the
15 '882 patent specification and figures is no more enabling of the invention of claims 10 and 19 than
16 the brief descriptions included in such documents as the Concept III document and the SB-2
17 registration. Mr. Prohofsky selects only portions of the '882 patent specification description to
18 compare to portions of the Concept III document or SB-2 registration. Mr. Prohofsky ignores the
19 large difference between the thorough technical disclosure of the '882 patent specification and the
20 brief descriptions included in the Concept III document and SB-2 registration. The '882 patent
21 includes 14 hardware drawings, 22 software flow charts, and more than 30 columns of
22 accompanying technical description. The enormous difference in technical disclosure of these
23 documents shows Mr. Prohofsky's assertion to be erroneous.

1 I have reviewed the Concept III document and the SB-2 filing. I had previously examined
2 these documents during my deposition of September 29, 1998. My opinion continues to be that
3 the Concept III document and the SB-2 filing would not teach a person of ordinary skill in the art
4 to develop a system that has the elements of claims 10 and 19 of the '882 patent. As I testified in
5 my deposition, these documents provide only an overview of what might be done, without
6 providing any details at all. That is, the SB-2 and Concept III documents are statements of goals,
7 not descriptions of how the goals are accomplished.
8

9 I note that on a number of occasions Mr. Prohofsky refers to "hav[ing] relied upon the
10 entire teaching of both [the '882 specification and the Concept III document] in forming [his]
11 opinion...." I must conclude that Mr. Prohofsky finds that the Concept III document teaches and
12 enables the invention of claims 10 and 19 only after his having absorbed the teaching and enabling
13 disclosure of the '882 patent. Absent the extensive teaching of the '882 patent, one skilled in the
14 art of gaming device design would not find the Concept III document or the SB-2 registration
15 teaches or enables the invention of claims 10 and 19.
16

17 **B. The U.K. '054 Application**

18
19 As I have previously stated in my Declaration of October 5, 1998, I believe that there are
20 numerous and significant differences between the U.K. '054 application and the invention
21 described and claimed in the '882 patent. For example, the U.K. '054 application describes only an
22 electronic "bingo" game with no mention of any progressive jackpot or slot-machine bonusing,
23 which are the focus of the '882 patent. The U.K. '054 does not describe any allocation of a portion
24 of coins wagered to any kind of pool. The U.K. '054 makes no mention of the word "preselection"
25 or "selection." The U.K. '054 application contains no statement that any payouts are related to any
26 command from any host computer. I have not found any description in the U.K. '054 application
27
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1 of an activity that can be called "preselection," as that term is used in the '882 patent, and as I have
2 construed that term for purposes of demonstrating CDS's infringement of the '882 patent. Given
3 my extensive experience in gaming device design, I believe that one skilled in the art would not
4 find any suggestion in the U.K. '054 application for the invention described and claimed in the
5 '882 patent.
6

7 I have also studied U.S. Patent No. 4,837,728 to Barrie et al. ("the Barrie patent"), which
8 Mr. Prohofsky combines with the U.K. '054 application to assert the obviousness of claims 10 and
9 19 of the '882 patent. I have reviewed the Barrie patent, and I find it describes a progressive slot
10 machine that would be considered conventional in 1993. The Barrie patent does not provide the
11 above-described teaching that is missing from the U.K. '054 application. I believe that one skilled
12 in the art of gaming device design would not, in 1993, have combined the features of the Barrie
13 patent with the U.K. '054 application to produce a system similar to that described and claimed in
14 the '882 patent.
15

16 C. Acres Progressive Table Games

17 I understand that CDS asserts that the inventions of claims 10 and 19 of the '882 patent are
18 found in Acres' progressive table games installed in the Rio Suites Casino in August of 1993. I
19 have reviewed the relevant portions of Mr. Vega's deposition and the exhibits pertaining to these
20 table games, and have spoken with Acres' employees about how those games were constructed. It
21 appears that these table games encompass conventional gaming device technology in 1993 and do
22 not include the inventions of claims 10 and 19 of the '882 patent. In particular, these progressive
23 table games did not include machine payout of the progressive amount. Instead, the dealer was
24 required to recognize the occurrence of the jackpot event, and the dealer would then cause the
25 jackpot to be awarded. The table games at the Rio were essentially a progressive meter.
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1 incremented by a player placing a coin in a coin slot. I also understand that the Rio table games
2 did not have the ability to preselect some of the games for operation through software. Any such
3 changes would require revising the progressive controller's code. I understand that in operation,
4 tables were not deactivated when not in use, but were covered with a table cloth so players would
5 not be confused.
6

7 **D. Treasure Island System**

8 I understand that CDS asserts that the inventions of claims 10 and 19 of the '882 patent
9 were on sale to Treasure Island prior to October 12, 1993. I am not particularly familiar with the
10 system that was the subject of the Treasure Island purchase order. However, I do understand that
11 the system specified included multiple controllers and a system architecture typical of then
12 conventional progressive control systems. The networked gaming system described and claimed
13 in the '882 patent differs significantly from that system specified in connection with the Treasure
14 Island purchase order. I do not believe that one skilled in the art of gaming device design would,
15 upon learning of the original specifications of the Treasure Island installation, have understood
16 that the invention of claims 10 and 19 of the '882 patent was contemplated in that purchase order.
17
18

19 **IV. Evaluation of Mr. Bennett's Report**

20 I have reviewed the Expert Report of Michael J. Bennett, who has been retained by Mikohn
21 Gaming Corporation ("Mikohn"). Mr. Bennett asserts that each of the elements of claim 10 of the
22 '882 patent is shown in any one of the following documents: The U.K. '054 application; the SB-2
23 registration; and the Concept III document. My comments in connection with Mr. Prohofsky's
24 report are equally applicable here. As stated above, I believe that any one or combination of these
25 documents would not teach one skilled in the art of gaming device design to produce the invention
26 described and claimed in the '882 patent.
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1 Mr. Bennett also asserts that each and every element of claim 10 of the '882 patent is
2 shown in U.S. Patent No. 4,652,998 to Koza et al. ("the Koza patent"). I have reviewed the Koza
3 patent, and I disagree with Mr. Bennett's assertion. The Koza patent does not describe the
4 preselection feature of claim 10, and there is also no description of the claimed command issued
5 responsive to a predetermined event. Mr. Bennett asserts that a random sampling of players
6 constitutes the claimed "preselecting" of claim 10. There is simply no connection between the
7 random sampling process described in the Koza patent and the claim term "preselecting," as that
8 term is used in the '882 patent, and as I have construed that term for purposes of demonstrating
9 Mikohn's infringement of that patent.
10

11
12 Mr. Bennett also asserts that U.S. Patent No. 5,280,909 to Tracy ("the Tracy patent") shows
13 every element of claim 9 in Acres' U.S. Patent No. 5,655,961 ("the Acres '961 patent"). I have
14 reviewed the Tracy patent, which I find describes a progressive jackpot gaming system that lacks a
15 number of the elements described and claimed in Acres '961 patent. I also note that the Tracy
16 patent was considered by the U.S. Patent Examiner during prosecution of Acres '961 patent, and
17 the Examiner apparently also concluded that Acres '961 patent was distinguishable and patentable
18 over the Tracy patent.
19

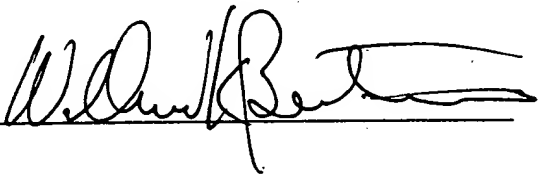
20 V. Conclusion

21 I believe that CDS and their expert Mr. Prohovsky are exercising hindsight reconstruction
22 of the inventions described and claimed in the '882 patent. CDS and Mr. Prohovsky identify a
23 number of documents that supposedly teach and enable the invention of claims 10 and 19 of the
24 '882 patent. However, one of skill in the gaming device art in 1993 would not, upon absorbing the
25 teaching of these documents, find '882 patent invention disclosed or made obvious. Only if one
26 has first studied and understood the extensive technical disclosure included in the '882 patent
27
28

1 specification, could one then "find" the supposed teaching of this invention in the documents
2 proffered by CBS and Mr. Prohovsky. Accordingly, I believe that CDS has failed to demonstrate
3 that the inventions of claims 10 and 19 of the '882 patent are anticipated or obvious. Also, as I
4 have previously demonstrated in my Expert Witness Report of February 15, 1999, I believe that
5 CDS infringes at least claims 10 and 19 of that patent.
6

7 I also believe that Mikohn and their expert Mr. Bennett have not identified any information
8 that would teach one skilled in the gaming device art in 1993 to make the inventions described and
9 claimed in the Acres '882 and '961 patents. As I have previously demonstrated in my declaration
10 of May 20, 1998, and in my Expert Witness Report of February 15, 1999, I believe that Mikohn
11 infringes at least claim 1 of the Acres '961 patent, and at least claims 1, 2, 10, 11, and 18 of
12 the '882 patent.
13

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16 Dated: 3/15/99
17 William K. Bertram, Ph.D.

By: 

1 William R. Urga
2 Nevada Bar No. 001195
3 Mark Rosencrantz
4 Nevada Bar No. 006475
5 JOLLEY, URG, WIRTH & WOODBURY
6 3800 Howard Hughes Parkway, 16th Fl.
7 Las Vegas, Nevada 89101
8 (702) 699-7500
9
10 Jerry A. Riedinger
11 Michael D. Broadus
12 Mark G. Jackson
13 PERKINS COIE LLP
14 1201 Third Avenue, 40th Fl.
15 Seattle, WA 98101-3099
16 (206) 583-8888
17 Attorneys for Acres Gaming Inc.

13 UNITED STATES DISTRICT COURT
14 DISTRICT OF NEVADA

16 ACRES GAMING INC.,

17 Plaintiff,

18 v.

19 MIKOHN GAMING CORPORATION &
20 CASINO DATA SYSTEMS,

21 Defendants.

NO. CV-S-98-1462-HDM (LRL)
(Base File)

**REBUTTAL STATEMENT BY
EXPERT WITNESS JOHN F. ACRES**

23 I. INTRODUCTION

24 I am John F. Acres. I anticipate testifying at trial both as a fact witness on issues that exist
25 between the parties and also as an expert witness on behalf of Plaintiff Acres Gaming, Inc. ("Acres"), in
26 the above-referenced action concerning United States Patent Nos. 5,820,459 ("the '459 patent") and
27 5,836,817 ("the '817 patent"). At present, I anticipate that my testimony as an expert will include a
28

1 rebuttal to any testimony of Leroy A. Prohofsky or Michael J. Bennett as described in their Expert
2 Reports dated June 24, 1999 and July 6, 1999, respectively.

3 I have previously submitted an Expert Witness Report, dated February 15, 1999 in the other
4 patent infringement action pending between the parties, Acres Gaming Inc. v. Mikohn Gaming
5 Corp., et al., No. CV-S-97-1383-HDM (LRL) ("the 1383 case"). I incorporate my previous expert
6 report into this rebuttal statement.
7

8 In the 1383 case, I also previously submitted a declaration dated October 5, 1998,
9 describing, among other things, the "Concept III" literature, the "SB-2" document, and the
10 development of the progressive jackpot system installed at Treasure Island by Acres' predecessor,
11 Gaming Innovations. I submitted a second declaration in the 1383 case dated May 21, 1999, in
12 response to several motions for summary judgment filed by CDS. I incorporate such declarations
13 into this rebuttal statement. Finally, I have given testimony in depositions taken on June 29, 1998,
14 March 16, 1999, and March 17, 1999, which addresses many of the positions I describe here.
15

16 II. PERSONAL BACKGROUND INFORMATION AND QUALIFICATIONS

17 I am the Chairman and Chief Executive Officer of Acres Gaming, Inc. and have held that
18 position since October 27, 1993, the date Acres Gaming, Inc. was formed. I have a Bachelor of Science
19 degree in math, with a major in computer science, from Ball State University, which I received in 1976.
20 I began software programming immediately after graduation for AW Consultants. I then worked for
21 General Motors, where I wrote engine control software. I started the first of my companies, a sole
22 proprietorship named ACR Consultants, shortly thereafter. ACR Consultants created software
23 application packages for companies, including, as examples, an accounting package, an inventory
24 package and some sound systems for a casino.
25
26

27 In 1981, I started a company named Electronic Data Technology ("EDT"). EDT worked within
28

1 the gaming industry, designing and installing progressive jackpot displays in casinos. I later sold
2 controlling interest in EDT to International Game Technology ("IGT") and formed JFA Enterprises.
3 JFA Enterprises designed and developed the tri-color LED display used for progressive systems. Less
4 than one year later, in 1985, I formed Mikohn, Inc. (now Mikohn Gaming Corporation) with Mike
5 Stone. While at Mikohn I did the product designs and was the vice-president of engineering and a
6 director. I helped Mikohn become one of the leading suppliers for progressive jackpot systems.
7

8 After I sold my interest in Mikohn, I formed Gaming Innovations, the predecessor to Acres
9 Gaming, Inc., in 1991. At first, Gaming Innovations provided consulting services to the gaming
10 industry. Later, Gaming Innovations began to develop, sell and install proprietary products for the
11 gaming industry, such as slot accounting, player tracking and table game progressive systems.
12

13 Acres Gaming was founded on the belief that casino gaming is all about people having fun and
14 feeling important, not about winning more money than is spent. Acres Gaming has conducted extensive
15 research into the areas of enhanced celebration of winning, unusual or unexpected rewards and
16 entertaining players while they are losing, all of which are important methods by which a casino can
17 increase play and profits. Acres Gaming has invested heavily in the development of new gaming
18 technology and, as a result, has grown into an industry leader in bonusing technology for use in the
19 gaming industry.
20

21 I am the first named inventor on six U.S. Patents: 5,655,961 (issued 8-12-97); 5,702,304 (issued
22 12-30-97); 5,741,183 (issued 4-21-98); 5,752,882 (issued 5-19-98); 5,820,459 (issued 10-13-98); and,
23 5,836,817 (issued 11-17-98). I have also taught seminars at the University of Nevada at Reno's Institute
24 of Advanced Gaming in 1997 and 1998. I was the Keynote Speaker at the South Henippler Gaming
25 Convention in Sydney, Australia in 1998. I have also made presentations in 1997 and 1998 at the
26 London International Gaming Show; at the I.G.W.A. show in 1997 in Las Vegas; and in 1998 at the
27
28

1 World Gaming Conference in Las Vegas. I have not authored any publications within the last ten years.

2 **III. MR. PROHOFSKY'S REPORT**

3 I have reviewed the Expert Witness Report of Leroy A. Prohofsky dated June 24, 1999. I
4 disagree with Mr. Prohofsky's conclusions, which he summarizes in section III of that Report.
5 Specifically, I do not believe that either the SB-2 document or the Acres Concept III document
6 describes the invention of claim 22 of the '817 patent. I further believe that the Acres progressive
7 table games installed at the Rio Suites casino were substantially different than claim 22. Further, I
8 do not believe that the invention of claim 22 would have been obvious in light of the U.K. '054
9 application or any other references cited in Mr. Prohofsky's report.
10

11 **A. Concept III and SB-2**

12 I have reviewed the Concept III document and the SB-2 filing and have been questioned
13 about these documents numerous times during my depositions. I believe that the Concept III
14 document and the SB-2 filing would not teach a person of ordinary skill in the art to develop a
15 system that has the elements of claim 22 of the '817 patent. As I testified in my depositions, these
16 documents provide only general descriptions of various concepts and systems, without providing
17 the details necessary to implement such concepts and systems. That is, the SB-2 and Concept III
18 documents are statements of goals, not descriptions of how the goals are accomplished.
19

20 **B. The U.K. '054 Application**

21 My review of the U.K. '054 application shows that there are important differences between
22 that system and the invention of claim 22 of the '817 patent. Significantly, the U.K. '054
23 application makes no mention of any progressive jackpot or slot-machine bonusing, which are the
24 focus of the '817 patent, but instead describes an electronic "bingo" game. In addition, the
25 U.K. '054 application does not describe any allocation of a portion of coins wagered to any kind of
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1 pool. The U.K. '054 application never uses the word "preselection" or "selection" and contains no
2 statement that any payouts are related to any command from any host computer. Also, the
3 U.K. '054 application does not describe any activity that can be called "preselection," as that term is
4 used in the '817 patent. I believe that one skilled in the art would not find any suggestion in the
5 U.K. '054 application for the invention described and claimed in the '817 patent.
6

7 **C. Acres Progressive Table Games**

8 Mr. Prohofsky asserts that the invention of claim 22 of the '817 patent is found in Acres'
9 progressive table games installed in the Rio Suites Casino in August of 1993. The Rio table games
10 used conventional gaming device technology in 1993 and did not include the invention of claim 22
11 of the '817 patent. For example, the Rio table games did not include machine payout of the
12 progressive amount. Instead, the dealer had to monitor the occurrence of the jackpot event, and
13 then cause the jackpot to be awarded. The table games at the Rio were essentially a progressive
14 meter, incremented by a player placing a coin in a coin slot. The Rio table games did not have the
15 ability to preselect some of the games for operation through software. Any such changes would
16 require revising the progressive controller's code.
17
18

19 **D. Treasure Island System**

20 CDS also asserts that the invention of claim 22 of the '817 patent was on sale to Treasure
21 Island prior to October 12, 1993. In my prior declarations and depositions, I have discussed how
22 the progressive system initially installed at Treasure Island on October 27, 1993, was not the
23 invention of Acres' patents. For example, the preselection feature of the invention of claim 22 had
24 not yet been developed when the Treasure Island casino first opened.
25

26 **IV. MR. BENNETT'S REPORT**

27 I have also reviewed the report dated July 6, 1999 signed by Mikohn's expert, Michael J.
28

1 Bennett. Mr. Bennett states that one or more of the following documents describe each element of
2 claims 1, 4, 8 and 15 of the '459 patent: the U.K. '054 application, the SB-2 registration, and the
3 Concept III document. Mr. Bennett further asserts that each of the elements of claims 16 and 18 of
4 the '459 patent is shown in both the SB-2 registration and the Concept III document. The
5 foregoing discussion of Mr. Prohofsky's report applies as well to Mr. Bennett's report because the
6 '459 and '817 patents share a common specification and, for purposes of this analysis, protect
7 similar inventions. I do not believe that any one or combination of the documents cited by Mr.
8 Bennett would teach one skilled in the art of gaming device design to produce the inventions
9 described and claimed in claims 1, 4, 8, 15, 16 and 18 of the '459 patent.
10

11
12 Mr. Bennett also asserts that each and every element of claims 1, 4, 8 and 15 of the
13 '459 patent is shown in U.S. Patent No. 4,652,998 to Koza et al. ("the Koza patent"). I have
14 reviewed the Koza patent, and I disagree with Mr. Bennett's assertion. For example, the Koza
15 patent does not describe the preselection feature of claims 1, 4, 8 and 15, and there is also no
16 description of the claimed reconfiguration command. Mr. Bennett asserts that a random sampling
17 of players constitutes the claimed "preselecting" of claims 1, 4, 8 and 15. The random sampling
18 process described in the Koza patent is completely different from the process of "preselecting," as
19 that term is used in the claims of the '459 patent.
20

21 Mr. Bennett also asserts that U.S. Patent No. 5,242,163 to Fulton ("the Fulton patent") in
22 combination with the U.K. '054 application renders obvious claims 16 and 18 of the '459 patent.
23 Again, I disagree with Mr. Bennett's assertion. I have reviewed the Fulton patent, which I find
24 describes a casino system that allows a person playing a game such as stud poker on a gaming
25 device to elect to participate in a group-oriented game such as bingo without leaving the gaming
26 device. My review shows that the system described in the Fulton patent is very different from the
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1 inventions of '459 patent and the disclosure of the U.K. '054 application. For instance, the ability to
2 participate in a bingo game, as described in the Fulton patent, is completely different than the term
3 "level of play" as used in claim 16 of the '459 patent. Likewise, the Fulton patent's description of
4 playing coins at a gaming device has no connection with the claimed criteria of the "rate at which
5 coins are played" as specified in claim 18 of the '459 patent. In addition, I see no suggestion for
6 combining any teachings of the U.K. '054 application with the Fulton patent.
7

8 As to the '817 patent, Mr. Bennett asserts that each of claims 1, 21, 24 and 29 is
9 "unintelligible, ambiguous, anticipated and obvious." Mr. Bennett is wrong. A person skilled in the
10 art who read the '817 patent specification would readily comprehend the meaning and import of the
11 inventions of claims 1, 21, 24 and 29. In addition, none of the documents cited by Mr. Bennett,
12 when considered alone or in any combination, describes the inventions of claims 1, 21, 24 and 29.
13
14

15 V. COMPENSATION

16 I am not receiving direct compensation for consulting, testimony, depositions or like for this
17 litigation.
18

19 VI. PRIOR TESTIMONY

20 I was previously qualified to testify as an expert at trial and by deposition in D&D Gaming
21 Patents, Inc. v. Rio Suite Hotel & Casino, et al., No. CV-S-93-835-LDG (RLH), in the District of
22 Nevada.
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1 I will also be prepared to respond to any questions asked by Defendants regarding the
2 above subjects. I also understand that discovery is not closed in this litigation, and I may need to
3 supplement this report based upon discovery information received before trial of this matter.
4

5
6 Dated: 7/17/99
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by 
JOHN F. ACRES
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1 William R. Urga
2 Nevada Bar No. 001195
3 Mark Rosencrantz
4 Nevada Bar No. 006475
5 JOLLEY, URGa, WIRTH & WOODBURY
6 3800 Howard Hughes Parkway, 16th Fl.
7 Las Vegas, Nevada 89101
8 (702) 699-7500
9 Jerry A. Riedinger
10 Michael D. Broaddus
11 Mark G. Jackson
12 PERKINS COIE LLP
13 1201 Third Avenue, 40th Fl.
14 Seattle, WA 98101-3099
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16 Attorneys for Acres Gaming Inc.

13 UNITED STATES DISTRICT COURT
14 DISTRICT OF NEVADA

16 ACRES GAMING INC.,

17 Plaintiff,

18 v.

19 MIKOHN GAMING CORPORATION &
20 CASINO DATA SYSTEMS,

21 Defendants.

NO. CV-S-98-1462-HDM (LRL)
(Base File)

**REBUTTAL STATEMENT BY
EXPERT WITNESS WILLIAM K.
BERTRAM, Ph.D.**

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I. Introduction

I am William K. Bertram. I have been retained as an expert witness by Plaintiff Acres Gaming Inc. ("Acres") in the above-referenced action. I have previously submitted Expert Witness Reports in this case dated June 29, 1999, and July 8, 1999, and have submitted an Expert Witness Report, dated February 15, 1999, and a Rebuttal Statement dated March 15, 1999, in the other patent infringement action pending between the parties, Acres Gaming Inc. v. Mikohn Gaming Corp., et al., No. CV-S-97-1383-HDM (LRL) ("the 1383 case"). I incorporate all of my previous expert reports and statements into this rebuttal statement. In my previous reports, I describe my technical background and qualifications, and I discuss my opinion that Mikohn Gaming Corp. ("Mikohn") infringes claims 1, 4, 8, 15, 16, and 18 of U.S. Patent No. 5,820,459 ("the '459 patent") and claims 1, 21, 24, and 29 of U.S. Patent No. 5,836,817 ("the '817 patent") and that Defendant Casino Data Systems ("CDS") infringes claim 22 of the '817 patent.

In the 1383 case, I also previously submitted a declaration on May 20, 1998, demonstrating CDS's infringement of claim 10 of the U.S. Patent No. 5,752,882 ("the '882 patent"), a patent having the same disclosure as the '459 and '817 patents. I further submitted a second declaration in the 1383 case dated October 5, 1998, demonstrating that the invention described and claimed in the '882 patent is neither taught nor enabled by published U.K. patent application GB 2151054A ("the U.K. '054 application"). I submitted a third declaration in the 1383 case dated May 20, 1999, in response to several motions for summary judgment filed by CDS. I incorporate these declarations into this rebuttal statement. Finally, I have given testimony in my deposition of September 29, 1998, which addresses many of the positions I describe here.

II. Evaluation Summary of Mr. Prohofsky's Report

I have reviewed the Expert Witness Report of Leroy A. Prohofsky dated June 24, 1999. I disagree with Mr. Prohofsky's conclusions, which he summarizes in section III of that Report. Specifically, I believe that claim 22 of the '817 patent is not anticipated by the Acres Concept III document. I also believe that claim 22 is not anticipated by the Form SB-2 registration statement submitted by Acres to the U.S. Securities and Exchange Commission. I further believe that claim 22 of the '817 patent is not anticipated by the Acres progressive table games installed at the Rio Suites casino. Further, claim 22 of the '817 patent is not rendered obvious by the U.K. '054 application or any other references cited in Mr. Prohofsky's report.

As stated in my Expert Witness Report of February 15, 1999, I have extensive experience in gaming product design. I believe that one skilled in the art of gaming device design would not, in 1993, have found it obvious to create the invention of claim 22 of the '817 patent given the then current state of the art.

I believe that the claim terms "command" and "predetermined event" used in claim 22 of the '817 patent are not vague. Indeed, the '817 patent specification provides a number of examples of such commands and predetermined events. These examples provide clarity to the claim terms, not ambiguity or vagueness as erroneously maintained by Mr. Prohofsky. Further, given the understanding of a person skilled in the art of gaming device design, the claim terms "command" and "predetermined event" are well understood and unambiguous. In addition, a person skilled in the art who read the '817 patent specification would understand that the "workstation" or "host computer" described in the specification has a "user-operated input device" as that term is used in claim 22.

As I have previously demonstrated in my Report of June 29, 1999, I believe that claim 22 of

1 the '817 patent is infringed by CDS.

2 III. Analysis

3 A. Concept III and SB-2

4 The majority of Mr. Prohofsky's report asserts that the technical disclosure in the
5 '817 patent specification and figures is no more enabling of the invention of claim 22 than the brief
6 descriptions included in such documents as the Concept III document and the SB-2 registration.
7 Mr. Prohofsky selects only portions of the '817 patent specification to compare to portions of the
8 Concept III document or SB-2 registration. Mr. Prohofsky thus ignores the large difference
9 between the thorough technical disclosure of the '817 patent specification and the brief descriptions
10 included in the Concept III document and SB-2 registration. The '817 patent includes 14 hardware
11 drawings, 22 software flow charts, and more than 30 columns of accompanying technical
12 description. The enormous difference in technical disclosure of these documents shows Mr.
13 Prohofsky's assertion to be erroneous.

14 I have reviewed the Concept III document and the SB-2 filing. I had previously examined
15 these documents during my deposition of September 29, 1998. I believe that the Concept III
16 document and the SB-2 filing would not teach a person of ordinary skill in the art to develop a
17 system that has the elements of claim 22 of the '817 patent. As I testified in my deposition, these
18 documents provide only an overview of what might be done, without providing any details at all.
19 That is, the SB-2 and Concept III documents are statements of goals, not descriptions of how the
20 goals are accomplished.

21 I note that on a number of occasions Mr. Prohofsky refers to "hav[ing] relied upon the
22 entire teaching of both [the '817 specification and the Concept III document] in forming [his]
23 opinion...." I must conclude that Mr. Prohofsky finds that the Concept III document teaches and
24

1 enables the invention of claim 22 only after his having absorbed the teaching and enabling
2 disclosure of the '817 patent. Absent the extensive teaching of the '817 patent, one skilled in the art
3 of gaming device design would not find the Concept III document or the SB-2 registration teaches
4 or enables the invention of claim 22.

6 B. The U.K. '054 Application

7 I believe that there are numerous and significant differences between the U.K. '054
8 application and the invention described and claimed in claim 22 of the '817 patent. For example,
9 the U.K. '054 application describes only an electronic "bingo" game with no mention of any
10 progressive jackpot or slot-machine bonusing, which are the focus of the '817 patent. The
11 U.K. '054 does not describe any allocation of a portion of coins wagered to any kind of pool. The
12 U.K. '054 makes no mention of the word "preselection" or "selection." The U.K. '054 application
13 contains no statement that any payouts are related to any command from any host computer. I
14 have not found any description in the U.K. '054 application of an activity that can be called
15 "preselection," as that term is used in the '817 patent, and as I have construed that term for
16 purposes of demonstrating CDS's infringement of the '817 patent. Given my extensive experience
17 in gaming device design, I believe that one skilled in the art would not find any suggestion in the
18 U.K. '054 application for the invention described and claimed in the '817 patent.

21 I have also studied U.S. Patent No. 4,837,728 to Barrie et al. ("the Barrie patent"), which
22 Mr. Prohofsky combines with the U.K. '054 application to assert the obviousness of claim 22 of the
23 '817 patent. I have reviewed the Barrie patent, and I find it describes a progressive slot machine
24 that would be considered conventional in 1993. The Barrie patent does not provide the above-
25 described teaching that is missing from the U.K. '054 application. I believe that one skilled in the
26 art of gaming device design would not, in 1993, have combined the features of the Barrie patent
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1 with the U.K. '054 application to produce a system similar to that described and claimed in the
2 '817 patent.

3 4 C. Acres Progressive Table Games

5 I understand that CDS asserts that the invention of claim 22 of the '817 patent is found in
6 Acres' progressive table games installed in the Rio Suites Casino in August of 1993. I have
7 reviewed the relevant portions of Mr. Vega's deposition and the exhibits pertaining to these table
8 games, and have spoken with Acres' employees about how those games were constructed. It
9 appears that these table games encompass conventional gaming device technology in 1993 and do
10 not include the invention of claim 22 of the '817 patent. In particular, these progressive table
11 games did not include machine payout of the progressive amount. Instead, the dealer was required
12 to recognize the occurrence of the jackpot event, and the dealer would then cause the jackpot to be
13 awarded. The table games at the Rio were essentially a progressive meter, incremented by a player
14 placing a coin in a coin slot. I also understand that the Rio table games did not have the ability to
15 preselect some of the games for operation through software. Any such changes would require
16 revising the progressive controller's code. I understand that in operation, tables were not
17 deactivated when not in use, but were covered with a tablecloth so players would not be confused.

18 19 20 D. Treasure Island System

21 I understand that CDS asserts that the invention of claim 22 of the '817 patent was on sale
22 to Treasure Island prior to October 12, 1993. I am not particularly familiar with the system that
23 was the subject of the Treasure Island purchase order. However, I do understand that the system
24 specified included multiple controllers and a system architecture typical of then conventional
25 progressive control systems. The networked gaming system described and claimed in the
26 '817 patent differs significantly from that system specified in connection with the Treasure Island
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1 purchase order. I do not believe that one skilled in the art of gaming device design would, upon
2 learning of the original specifications of the Treasure Island installation, have understood that the
3 invention of claim 22 of the '882 patent was contemplated in that purchase order.
4

5 IV. Evaluation of Mr. Bennett's Report

6 I have reviewed the Expert Report of Michael J. Bennett dated July 6, 1999, who has been
7 retained by Mikohn. Mr. Bennett asserts that each of the elements of claims 1, 4, 8 and 15 of the
8 '459 patent is shown in any one of the following documents: the U.K. '054 application, the SB-2
9 registration, and the Concept III document. Mr. Bennett further asserts that each of the elements
10 of claims 16 and 18 of the '459 patent is shown in both the SB-2 registration and the Concept III
11 document. My comments in connection with the discussion of the '817 patent contained in Mr.
12 Prohofsky's report are equally applicable here because the '459 and '817 patents share a common
13 specification and, for purposes of this analysis, protect similar inventions. I believe that any one or
14 combination of the documents cited by Mr. Bennett would not teach one skilled in the art of
15 gaming device design to produce the inventions described and claimed in claims 1, 4, 8, 15, 16 and
16 18 of the '459 patent.
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19 Mr. Bennett also asserts that each and every element of claims 1, 4, 8 and 15 of the
20 '459 patent is shown in U.S. Patent No. 4,652,998 to Koza et al. ("the Koza patent"). I have
21 reviewed the Koza patent, and I disagree with Mr. Bennett's assertion. The Koza patent does not
22 describe the preselection feature of claims 1, 4, 8 and 15, and there is also no description of the
23 claimed reconfiguration command. Mr. Bennett asserts that a random sampling of players
24 constitutes the claimed "preselecting" of claims 1, 4, 8 and 15. There is simply no connection
25 between the random sampling process described in the Koza patent and the claim term
26 "preselecting," as that term is used in the '459 patent, and as I have construed that term for
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1 purposes of demonstrating Mikohn's infringement of that patent.

2 Mr. Bennett also asserts that U.S. Patent No. 5,242,163 to Fulton ("the Fulton patent") in
3 combination with the U.K. '054 application renders obvious claims 16 and 18 of the '459 patent. I
4 disagree with Mr. Bennett's assertion. I have reviewed the Fulton patent, which I find describes a
5 casino system that allows a person playing a game such as stud poker on a gaming device to elect
6 to participate in a group-oriented game such as bingo without leaving the gaming device. My
7 review of the Fulton patent shows that the system described is very different from the inventions of
8 '459 patent and the disclosure of the U.K. '054 application. In particular, I find no connection
9 between the ability to participate in a bingo game described in the Fulton patent and the claim term
10 "level of play" as used in claim 16 of the '459 patent. Similarly, the fact that the Fulton patent
11 describes playing coins at a gaming device at some unspecified and unmonitored rate has nothing to
12 do with claimed criteria of the "rate at which coins are played" as specified in claim 18 of the '459
13 patent. Moreover, I find no motivation or suggestion to combine any teachings of the U.K. '054
14 application with the Fulton patent.

15 As to the '817 patent, Mr. Bennett asserts that each of claims 1, 21, 24 and 29 is
16 "unintelligible, ambiguous, anticipated and obvious." I disagree with Mr. Bennett's assertion. I
17 believe that, after reading the specification of the '817 patent, one skilled in the art would have no
18 difficulty understanding the scope of the claimed invention for each of claims 1, 21, 24 and 29. The
19 numerous drawings and flowcharts contained in the specification together with the lengthy
20 technical description provides ample information for one skilled in the art to ascertain the
21 inventions of the '817 patent. Such a person would understand the asserted claims of the '817
22 patent in a manner consistent with the claim construction set forth in my Expert Report dated July
23 8, 1999. Further, the references discussed by Mr. Bennett do not describe the inventions of claims
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1 1, 21, 24 and 29, regardless of whether the references are considered singly or in any combination.

3
V. Conclusion

5 I believe that CDS and their expert Mr. Prohofsky are exercising hindsight reconstruction
6 of the inventions described and claimed in the '817 patent. CDS and Mr. Prohofsky identify a
7 number of documents that supposedly teach and enable the invention of claim 22 of the
8 '817 patent. However, one of skill in the gaming device art in 1993 would not, upon absorbing the
9 teaching of these documents, find the invention of the '817 patent disclosed or made obvious.

11 Only if one has first studied and understood the extensive technical disclosure included in the
12 '817 patent specification, could one then "find" the supposed teaching of this invention in the
13 documents proffered by CDS and Mr. Prohofsky. Accordingly, I believe that CDS has failed to
14 demonstrate that the invention of claim 22 of the '817 patent is anticipated or obvious. Also, as I
15 have previously demonstrated in my Expert Witness Report of June 29, 1999, I believe that CDS
16 infringes claim 22 of that patent.

17 I also believe that Mikohn and their expert Mr. Bennett have not identified any information
18 that would teach one skilled in the gaming device art in 1993 to make the inventions described and
19 claimed in the Acres '459 and '817 patents. Moreover, one of ordinary skill in the art would have
20 no trouble understanding the claims of the '817 patent. As I have previously demonstrated in my
21 Expert Witness Report of July 8, 1999, I believe that Mikohn infringes claims 1, 4, 8, 15, 16, and
22 18 of the '459 patent and claims 1, 21, 24, and 29 of the '817 patent.

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27 Dated: 7-19-99
William K. Bertram, Ph.D.

By: 

EXPERT WITNESS REPORT OF

R. FRANKLIN BURNETT

RECEIVED

JUN 07 1999

PERKINS COIE

R. Franklin Burnett is being offered as an expert witness to testify on behalf of the Defendant, Casino Data Systems (CDS), in this action regarding U.S. Patent and Trademark Office (PTO) practice and procedure, the examination and prosecution of the applications leading to the patents-in-suit, and the validity and enforceability of the patents-in-suit, explaining as necessary the events which relate to the issues involved, particularly as such events relate to whether (1) United States Patent No. 5,752,882 ('882 application or '882 patent), and (2) United States Patent No. 5,836,817 ('817 application or '817 patent) are valid and enforceable or were obtained through inequitable conduct resulting from violations of Applicants' duty of candor and good faith and duty of disclosure.

I. EXPERT QUALIFICATIONS

1. I served in the Patent and Trademark Office from 1956 until my retirement in 1989. I served as Special Assistant to the Assistant Commissioner for Patents, as Supervisory Patent Examiner, and as Patent Examiner. I reside at 4902 Highway 25 South, Greenwood, South Carolina 29646.

2. I received a Bachelor of Science degree in Agricultural Engineering in 1956 from Clemson University, Clemson, South Carolina and a Juris Doctor with Honors in 1962 from The George Washington University, Washington, D.C.

3. During my service in the PTO, with the exception of a two-year military service period (50th Airborne Signal Battalion, Fort Bragg), I was involved with the examination of patent applications and the administration of patent examining programs on behalf of the PTO.

4. From 1972 to 1989, I was Special Assistant to the Assistant Commissioner for Patents in the PTO as part of the Senior Executive Service of the federal government. As Special Assistant, I was among those responsible for drafting regulations and procedures for examining applications in, and prosecuting applications before, the PTO, including the regulations and procedures regarding the duty of candor and duty of disclosure in Title 37 of the Code of Federal Regulations (CFR) and the Manual of Patent Examining Procedure (MPEP). During much of the period I was Special Assistant I was responsible for directing and supervising a Special Program Examination Unit composed of 10-15 examiners (lawyers) who were responsible for the examination of patent applications involving issues of "fraud" and inequitable conduct which were referred to that Unit from all of the Examining Groups of the PTO. This Unit examined all of the applications in which issues of "fraud" and inequitable conduct were considered by the PTO except those in which the issues were considered during an interference proceeding.

5. During the 1970's while I was Special Assistant, I also served as the Director of two different Patent Examining Groups for separate periods of time.

6. From 1967 to 1972, I was a Supervisory Patent Examiner in Examining Group 160 (Chemical Engineering) where I was responsible for the supervision and training of about 20 patent examiners.

7. Prior to 1967, I was a Patent Examiner examining patent applications in various mechanical engineering fields of technology.

8. Following my retirement from federal service in 1989, I served for a brief period of time as a consultant to the government of Indonesia on establishing a patent office and patent system. Since then I have been serving as a patent consultant in private practice.

9. During my service in the PTO, I was called upon to testify on behalf of the PTO, at depositions and in Federal District Court, in the field of PTO practice and procedure.

10. Since my retirement from federal service I have testified as an expert witness in Federal District Court in the field of patents and have consulted in patent matters. I have given my affidavit and/or testified in several contested patent infringement matters in Federal Courts, as an expert in PTO procedure.

11. Attached hereto is an accurate resume of my experience and qualifications.

II. STATEMENT OF OPINIONS

1. The opinions below are based on the studies conducted and the information available to me to date. As additional opinions are formulated based on evidence developed during discovery and otherwise, these opinions may be supplemented as appropriate.

2. In testifying as to the opinions set forth herein, I expect to explain, to the extent necessary and appropriate, the events which occurred during the prosecution and examination of the applications leading to the '882 patent and the '817 patent, including the events which occurred during the prosecution and examination of Application Serial No. 08/322,172, filed October 12, 1994, now U.S. Patent No. 5,655,961 ('961 application or '961 patent), of which the '882 and '817 applications claimed to be divisional applications filed under 37 CFR §1.60. I expect to explain that, under U.S. patent practice, the '882 and '817 applications and patents are therefore entitled to no earlier filing date in the United States than October 12, 1994.

3. I expect to explain, to the extent necessary and appropriate, the requirements and expectations of the PTO during the relevant period as to the duty of candor and good faith, and the duty of disclosure, referring as necessary and appropriate to the regulations, PTO publications, and relevant judicial decisions. In so testifying, I expect to explain that, since November, 1992, §2001.04 of the MPEP, Rev. 14, 5th Edition, has described "information material to patentability" as follows:

"The term 'information' as used in 37 CFR 1.56 means all of the kinds of information required to be disclosed and includes any information which is 'material to patentability.' Materiality is defined in 37 CFR 1.56(b) and discussed herein at MPEP §2001.05. In addition to prior art such as patents and publications, 37 CFR 1.56 includes, for example, information on possible prior public uses, sales, offers to sell, derived knowledge, prior invention by another, inventorship conflicts, and the like.

"The term 'information' is intended to be all encompassing 37 CFR 1.56(a) also states: 'The Office encourages applicants to carefully examine: *** (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.' ***"

See, also §2001.04, MPEP, 7th Edition, July, 1998.

4. I expect to relate the requirements and expectations of the PTO during the relevant period as to the duty of candor and good faith, and the duty of disclosure, to the events and circumstances involved in the prosecution and examination of the applications leading to the patents-in-suit.

THE APPLICATIONS LEADING TO THE '882 AND '817 PATENTS

5. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that information material to patentability was not disclosed to the Examiner, and that there were failures to comply with the duty of candor and good faith, by the Applicants and/or their Attorney (hereinafter collectively Applicants) during the prosecution of the applications

leading to the '882 and '817 patents. Based on the documents and testimony reviewed to date, I expect to testify that the level of materiality of the information material to patentability which was not disclosed, and the failures to comply with the duty of candor and good faith, were such that "but for" the failures to disclose such information and to comply with the duty of candor and good faith, the '882 and '817 patents would not have issued with the Claims they now contain, or at least would not have issued without the record being clarified as to why they should so issue. In so testifying, I expect to rely upon the opinions and testimony of CDS' technical expert(s), to the extent necessary and appropriate, as to the level of materiality of the information not disclosed and the failures in the duty of candor and good faith.

THE "GAMING INNOVATIONS CONCEPT III" "BOUND
DOCUMENT" OR BROCHURE WAS A PRINTED PUBLICATION
UNDER 35 U.S.C. §102(b) AND WAS NOT DISCLOSED
TO THE PTO EXAMINER

6. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the Concept III bound document or brochure (McCollom Exhibit 172; 2043561-99) was a printed publication under 35 U.S.C. §102(b), was known to and in the prosecution file of Applicants' Attorney McCollom prior to the filing of the first of the applications leading to the '882 and '817 patents ('961 application), and was not disclosed to the Examiner.

7. I expect to point out that Attorney McCollom has testified at pages 298-302 of his deposition of December 9, 1998, that

"I recall having a bound document in my 4164-2 file [p. 299; "prosecution file for the first Acres Gaming patent application"] that looked like it might have been ["marketing material"]."

At page 348 of his deposition Attorney McCollom testified he was "sure" he received Exhibit 172 before the '961 application was filed and at pages 349-50 of his deposition Attorney McCollom testified that Exhibit 172 was what he was referring to as "spiral bound with a plastic cover" that he received prior to filing the '961 application and which he put in his application file.

8. I expect to point out that Jose Vega, employed by Acres from October, 1991 (Vega deposition, 1/25/99, p. 23), to November, 1995 (Vega deposition, p. 8), testified, at pages 115-6 of his deposition, as follows:

(p. 115)

"Q. Did you ever see a product brochure that was spiral bound on the left-hand side with a clear plastic cover?

"A. Oh, that has definitions of Double Jackpot Time and things of that nature?

"Q. Correct.

"A. Yes.

"Q. ... Were those kept in your offices in Corvallis?

"A. I believe so, yes.

"Q. Where were they kept?

"A. Up by the mail room, I believe, where we got our mail.

"Q. All right. Was there a stack of them in the mail room?

"A. I believe so.

"Q. Was that so you could mail them out quickly?

"A. I would guess, yeah.

"Q. All right. Do you know if Mr. Acres did any marketing mailings of his glossy binder?

"A. I know that they would be sent if somebody -- if John had talked to somebody and they had requested information, he would go ahead and send that to them, or he would have one of us do that.

"Q. Did you ever do that?

"A. Yes.

"Q. Who can you recall sending the glossy spiral-bound binder to?

"A. *** I believe I sent one to New Jersey Division of Gaming Control."

9. I expect to point out that Acres Exhibit 262 (3002436-9), dated 5/25/93, detailed two instances in which "the write up on the Concept III System" was "faxed" to individuals by "Wendell" and that was reported to Acres.

10. I expect to point out that Wiebenson Exhibit 3 (2002918-35) includes a version of the Concept III brochure and a cover letter signed by Acres setting forth the benefits to the Winnebago Wisconsin Nation. The drawing in Exhibit 3 (2002928) has additions to it over the drawing in Exhibit 172 (2043570). At pages 202-3 of his deposition of June 29, 1998, Acres testified he sent Exhibit 3 to the casino manager for

the Winnebago Indian Tribal Council in the first half of 1993.

11. I expect to point out that Acres Exhibit 7 (2002988-97) (Acres deposition, 6/29/98, pp. 257-71) included a version of the Concept III brochure (2002994-7) and this was sent to Binion of Binion's Horseshoe Casino in January, 1993.

12. I expect to point out that documents obtained by CDS (CDS 0008206-37) establish that a version of the Concept III brochure was sent to, and received by, Joe Rammos of Casino Royale on February 16, 1993 (CDS 0008231-7).

13. I expect to point out that Acres Exhibit 257, a letter and "Proposal for Ramada Express Casino January 6, 1993" (3002469-81), included a version of the Concept III brochure (3002477-81).

14. I expect to point out that Acres testified, at page 706 of his deposition of March 17, 1999, that

"I would never give someone an outline of Concept III if it weren't chasing after some business. Whether that was down to specific pricing, giving general pricing information, or no pricing at all, it is not a document that we mailed out."

15. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the Concept III brochure (Exhibit 172; Exhibit 3; and other versions) qualified as printed publications under 35 U.S.C. §102(b) since they were sent out to members of the industry in "chasing after some business" and thus were generally available to those in the industry who were potential customers. The testimony and documents reviewed to date fail

to support a conclusion that the Concept III brochure, e.g., Exhibits 172 and 3, was distributed in confidence and no markings appear thereon to so indicate.

16. I expect to testify that even if the Concept III brochure is ultimately found not to qualify as prior art under 35 U.S.C. §102(b), the evidence is clear and convincing that the Concept III brochure was information which established "a prima facie case" of publication under 35 U.S.C. §102(b) and therefore was required to be disclosed to the PTO Examiner by 37 CFR §1.56(b). I expect to testify that, based on the present record, a PTO Examiner would have relied upon the Concept III brochure, e.g., Exhibits 172 or 3, as a printed publication and placed the burden upon Applicants to refute the Examiner's position.

THE CONCEPT III BROCHURE WAS INFORMATION MATERIAL
TO PATENTABILITY UNDER 37 CFR §1.56

17. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the Concept III brochure, e.g., Exhibits 172 or 3, was information material to patentability and required to be disclosed to the PTO Examiner.

18. I expect to point out that Attorney McCollom testified, at page 298 of his deposition of December 9, 1998, about having a "bound document in my 4164-2 file that looked like it might have been" "marketing material" and, at page 350 of his deposition, testified that the drawing from Exhibit 172

(2043570)

"wound up as figure one of the '961 patent."

19. I expect to testify that a comparison of Claim 10 of the '882 patent with the content of McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability" of Claim 10 under 35 U.S.C. §102 and/or §103 as set forth below:

Claim 10 of the '882 Patent McCollom Exhibit 172

A method of operating gaming devices interconnected by a host computer having a user-operated input device

comprising:

associating each gaming device with a unique address code;

preselecting less than all of the gaming devices interconnected by the host computer responsive to a user-effected action at the input device which identifies the preselected gaming devices with the respective associated address codes;

20043565- "Instead of mounting a controller beneath each carousel of machines, the system is programmed from a personal computer. You simply type in which machines are connected to which links and describe the starting jackpot amounts, increment rates, limits if any, etc."

2043571- "Advanced identification techniques let you specify the machine house number as you install it. If the machine is later moved, it is automatically re-located by the system."

2043564- "Concept III lets you run promotions on any properly equipped machines in your casino while simultaneously gathering player tracking and accounting data from all machines. You select which machines are used in which promotions, connect your signage and information displays (if any), and begin operation. Concept III allows any number of different promotions to operate simultaneously."

2043565- "you can set up the system to only pay Double Jackpots to customers playing maximum coins, or pay double only on awards above a specified amount."

Claim 10 of the '882 Patent McCollom Exhibit 172
(Continued) (Continued)

"You simply type in which machines
 are connected to which links"

using the network to
 track activity of the
 preselected gaming device;

2043564- See above.

2043566- "Since Concept III monitors
 slot activities, it collects all
 information required for proper slot
 accounting reports."

2043567- "Concept III also records
 how long the customer spends at each
 machine and records the number of
 coins won, counts games played and
 hand paid jackpots won."

issuing a command over
 the network to one of
 said preselected gaming
 devices responsive to
 a predetermined event;
 and

2043563-4- "We have developed new
 communication protocols with Bally
 and IGT that allow the AutoScan
 module to tell the machine to pay
 money from the hopper, place extra
 credits on the credit meter or allow
 play without depositing coins.
 AutoScan can even command the machine
 to pay all jackpots at two or three
 times the normal rate and communicate
 with customers through displays
 mounted on the machine."

2043564- "AutoScan provides full
 accounting of bonus payments and
 requires no human intervention for
 bonus award payments."

2043565- See above.

paying at said one
 gaming device in
 accordance with the
 command."

2043564- "Concept III automates double
 jackpot payments by causing the
 machine hopper to pay bonus amounts."

In testifying that McCollom Exhibit 172 establishes at least
 "a prima facie case of unpatentability" of Claim 10 I expect to
 rely, to the extent necessary and appropriate, upon the opinions
 and testimony of CDS' technical expert(s) as to the effect of
 Exhibit 172 on the Claims of the '882 patent.

20. I expect to testify that a comparison of Claim 22 of the '817 patent with the content of McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability" of Claim 22 under 35 U.S.C. §102 and/or §103 as set forth below:

Claim 22 of the '817 Patent McCollom Exhibit 172

A method of operating gaming devices interconnected by a computer network to a host computer having a user-operated input device

2043565- See quotation above in ¶ 19 re Claim 10 of '882 Patent

comprising:

preselecting less than all of the gaming devices interconnected by the computer network responsive to a user-effected action at the input device;

2043564- See quotation above in ¶ 19 in re "preselecting" recitation in Claim 10 of '882 Patent

using the network to track the amount of money played on the preselected gaming devices;

2043564; 2043566; 2043567- See quotations above in ¶ 19 re tracking the activity in Claim 10 of '882 Patent

allocating a predetermined percentage of the money played to a bonus pool; and

2043565- "You simply type in which machines are connected to which links and describe the starting jackpot amounts, increment rates, limits if any, etc."

issuing a command over the network to cause a bonus to be paid from the pool by one of said preselected gaming devices upon the occurrence of a predetermined event."

2043563; 2043564; 2043565- See quotations above in ¶ 19 in re issuing a command and paying in Claim 10 of the '882 Patent

In testifying that McCollom Exhibit 172 establishes at least "a prima facie case of unpatentability of Claim 22 I expect to

rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to the effect of Exhibit 172 on the Claims of the '817 patent.

21. I expect to testify that, based on the documents and testimony reviewed to date, McCollom Exhibit 172 compels a conclusion that "a prima facie case of unpatentability" exists as to Claims of the '882 patent and the '817 patent and those Claims would have been rejected in the '882 and '817 applications by the PTO Examiner if Exhibit 172 had been disclosed to the Examiner, and thereafter Applicants would have had an opportunity to submit any evidence they had in an attempt to establish the patentability of the Claims. Thus, "but for" the failure to disclose Exhibit 172 the Claims would not have been allowed, or at least would not have been allowed without the record being clarified as to why they should have been allowed.

THE "FORM SB-2 REGISTRATION STATEMENT"
(ACRES EXHIBIT 6) FILED WITH THE SECURITIES
AND EXCHANGE COMMISSION (SEC) ON SEPTEMBER 20,
1993, WAS A PRINTED PUBLICATION UNDER
35 U.S.C §102(b) AND WAS NOT DISCLOSED TO
THE PTO EXAMINER

22. I expect to testify that, based on the documents and testimony reviewed to date, the FORM SB-2 constitutes prior art under 35 U.S.C. §102(b) since it was available to the public no later than October 1, 1993. See the deposition of Mary Ann Wismer taken February 25, 1999, pages 52-62,

69-72, 112-114, 116-117, 131-134, and 144-145.

23. I expect to point out that McCollom Exhibit 169 (GPM 0001652-91), the Preliminary Prospectus Dated October 13, 1993, at page 2 (GPM 0001653), announced the availability of copies of the FORM SB-2 and the various locations from which they could be obtained.

24. I expect to point out that Acres signed FORM SB-2 on September 17, 1993, but testified, at pages 200-2 of his deposition that even though he knew that he had a duty to disclose material prior art to the PTO Examiner he did not disclose the FORM SB-2 to his patent attorney because

"I didn't see any relevance."

25. I expect to testify that Acres had been previously advised by Attorney McCollom in an April 30, 1993, "Patent validity study and opinion Our Docket No. 464-1" (McCollom Exhibit 136; GPM 0003105-28) regarding Acres' "proposed progressive jackpot table game for live blackjack tables" that prior art included "public uses and sales" and that the disclosure of "relevant prior art of which the applicant was aware"

"is a duty imposed upon applicants for U.S. patents by federal regulations." (GPM 0003107):

26. I expect to point out that Attorney McCollom, at pages 284-94 of his deposition of December 9, 1998, testified that he assisted the underwriters in preparing or reviewing portions of the prospectus (pp. 293-4), received a copy of the prospectus at home (p. 286), has seen a copy with red

ink which comports "in terms of appearance" with Exhibit 169 (p. 286), and purchased shares of Acres Gaming "at the initial public offering price" (pp. 292-3).

27. I expect to testify that, based on the documents and testimony reviewed to date, the FORM SB-2 was a printed publication under 35 U.S.C. §102(b) known at least to Acres and that Attorney McCollom had been involved in preparing or reviewing portions of the prospectus and had purchased shares of Acres Gaming "at the initial public offering price."

28. I expect to testify that even if the FORM SB-2 is ultimately found not to qualify as prior art under 35 U.S.C. §102(b), the evidence is clear and convincing that the FORM SB-2 was information which established "a prima facie case" of a publication under 35 U.S.C. §102(b) and therefore was required to be disclosed to the PTO Examiner by 37 CFR §1.56(b). I expect to testify that, based on the present record, a PTO Examiner would have relied upon the FORM SB-2 as a printed publication and placed the burden upon Applicants to refute the Examiner's position.

THE FORM SB-2 WAS INFORMATION MATERIAL TO
PATENTABILITY UNDER 37 CFR §1.56

29. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the FORM SB-2 was information material to patentability and required to be disclosed to the PTO Examiner.

30. I expect to point out that FORM SB-2, at page 20, and the Preliminary Prospectus Dated October 13, 1993 (Exhibit 169), at page 18, both contain a list of Concept III installations which the Company "has installed or has obtained contracts for". Included in the list in both Exhibits 6 (FORM SB-2) and 169 are an installation in August, 1993, of progressive jackpots for table games at the Rio Suites Hotel & Casino and an installation in October, 1993, of progressive jackpots for slot machines at Treasure Island Casino.

31. I expect to point out that Attorney McCollom testified, at pages 236-7 of his deposition of December 9, 1998, that he was aware before the filing of the application for the '961 patent that Acres "had been in a marketing mode", but he did not

"request any marketing information that was distributed by Acres Gaming prior to filing the patent application." (page 361, 12/9/98 deposition).

32. I expect to testify that, based on the documents and testimony reviewed to date, the list of installations in the FORM SB-2, and particularly the Rio Suites Hotel & Casino progressive jackpots for table games and the Treasure Island Casino progressive jackpots for slot machines, when considered with the descriptions of Concept III products in the document at, for example, pages 15-24, compels a conclusion that "a prima facie case of unpatentability" of the Claims of the '882 and '817 patents exists under 35 U.S.C. §102(b) and/or §103 based on the FORM SB-2 disclosures. I expect to testify

that, based on the present record, a PTO Examiner would have rejected the '882 application Claims and the '817 application Claims if FORM SB-2 had been disclosed to the Examiner, and thereafter Applicants would have had an opportunity to submit any evidence they had in an attempt to establish the patentability of the Claims. Thus, "but for" the failure to disclose the FORM SB-2 the Claims would not have been allowed, or at least would not have been allowed without the record being clarified as to why they should have been allowed.

33. In testifying that FORM SB-2 establishes "a prima facie case of unpatentability" of Claims of the '882 and '817 patents I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to the effect of FORM SB-2 on the Claims of the '882 and '817 patents.

VARIOUS "ON SALE" ACTIVITIES WHICH OCCURRED
MORE THAN ONE YEAR PRIOR TO THE OCTOBER 12,
1994, FILING DATE OF THE '961 APPLICATION
WERE NOT DISCLOSED TO THE PTO EXAMINER

A. THE CASINO ROYALE ACTIVITIES BETWEEN FEBRUARY 15, 1993,
AND OCTOBER 5, 1993 (CDS 0008206-37; THE CASINO ROYALE DOCUMENTS)

34. I expect to testify that the Casino Royale documents demonstrate "on sale" activity beginning with a February 15, 1993, letter from Acres to Rammos of Casino Royale which included a "Concept III Overview" (CDS 0008234-7). Further documents include a proposal (CDS 0008230), dated April 20, 1993, on

"Gaming Innovations" letterhead and addressed to Rammos, which offered Casino Royale "the bonus system" for a set price. A further letter, signed by Acres and transmitting a proposal, was dated July 30, 1993 (CDS 0008206-9).

B. THE TREASURE ISLAND ACTIVITIES REFERENCED IN FORM SB-2 DATED SEPTEMBER 17, 1993 (ACRES EXHIBIT 6, p. 20) AND IN THE PRELIMINARY PROSPECTUS DATED OCTOBER 13, 1993 (McCOLLUM EXHIBIT 169, p. 18)

35. I expect to testify that Exhibits 6 and 169 demonstrate "on sale" activity at Treasure Island Casino prior to October 12, 1993, the "critical date" for the '961 application, through a contract for "Progressive jackpots for slot machines" with the "Date of Installation" listed as October, 1993. Exhibit 6, at page 15, and Exhibit 169, at page 14, represent that

"[t]he Treasure Island Casino in Las Vegas, scheduled to open in late October 1993, has ordered the progressive jackpot system for slot machines for casino-wide use."

Exhibit 6, at page 18, and Exhibit 169, at page 16, describe Acres' Concept III "Progressive Jackpots for Slot Machines" as follows:

"A progressive jackpot system links a number of slot machines to generate a collective jackpot. As coins are played in the machines, a portion of each coin is allocated to the creation of the jackpot. Other progressive jackpot systems In contrast, a Concept III progressive jackpot system is programmed remotely from a personal computer. This method of programming enables the casino manager to determine which machines are to be linked to the progressive jackpot, and to establish various parameters such as starting jackpot amounts, rates of increment, and limits, if any, on the jackpot. The flexibility

provided by Concept III enables the casino manager to design, alter and readily implement new progressive jackpot promotions which may be created from time to time."

C. THE WISCONSIN WINNEBAGO NATION ACTIVITIES

36. I expect to testify that Exhibits 6 and 169 demonstrate "on sale" activity at the Wisconsin Winnebago Nation through contracts with dates of installation in August and November, 1993. Wiebenson Exhibit 3 (2002918-35) demonstrates that the "on sale" activity included the Concept III brochure with all its features.

D. THE BINION'S HORSESHOE CASINO ACTIVITIES

37. I expect to testify that Acres Exhibit 7 (2002988-97) demonstrates "on sale" activity by including a "Concept III System Proposal for Binion's Horseshoe Casino January 5, 1993"

"to fully implement player tracking and slot accounting"

and representing that

"[t]he system is capable of accepting any combination of Gaming Innovations' Concept III promotion systems, including Double Jackpot Time, Bonus Jackpots, Cashless play and progressives." (2002991).

The "Concept III Overview" brochure was included and referenced in the letter from Acres to Binion (2002989).

E. THE RAMADA EXPRESS CASINO ACTIVITIES

38. I expect to testify that Acres Exhibit 257 (3002469-81) demonstrates "on sale" activity by a "proposal for Ramada Express Casino January 6, 1993". The letter from Acres (3002469) described the proposal as

"a four part proposal for enhancing your player tracking and data collection system"

and also represented that

"enclosed is an outline of what we call Concept III. These are promotion modules we are developing to run on our data collection/Player Tracking equipment."

The "Concept III Overview" brochure (3002477-80) was included.

F. THE RIO SUITES HOTEL & CASINO ACTIVITIES

39. I expect to testify that Exhibits 6 and 169 demonstrate "on sale" activity at Rio Suites Hotel & Casino by installation in August, 1993, of "Progressive jackpots for table games".

40. I expect to point out that in a letter dated September 15, 1993, sent by facsimile on September 16, 1993, to Kim Lighthart of Nevada Gaming Control from Acres (0048-51), Acres outlined "our progressive jackpot system architecture" for slot machines and represented (0050) that

"[t]hese concepts were originally developed by us for use on the Caribbean Stud table games and later on our own progressive 21 tables. These systems have met the review of your department. Of course, you'll want to review the slot versions as well."

41. I expect to point out that Attorney McCollom, in his "Patent validity study and opinion" (McCollom Exhibit 136; GPM 0003105-28) relied on "progressive jackpot systems which are connected to a bank of slot machines" (GPM 0003106) as prior art relevant to patents relating to progressive jackpot systems for casino table games.

42. I expect to point out that McCollom testified, at pages 153-5 of his deposition of September 1, 1998, that it

was appropriate to use

"prior art that involved progressive jackpot systems for slot machines to support ... [his] opinion of invalidity of a jackpot system for a gaming table."

43. I expect to point out that Exhibit 6, at page 18, and Exhibit 169, at page 17, represented that Acres recently began marketing gaming tables incorporating the progressive jackpot system and that

"[t]he first installation resulting from direct marketing of the Concept III progressive jackpot system for table games is a four-table 'Progressive 21' installation in the Rio Suites Hotel & Casino in Las Vegas, where final approval tests for the Nevada Gaming Commission were recently completed and a 30-day field trial is currently in progress."

THE "ON-SALE" ACTIVITIES WERE SUCCESSFUL MORE
THAN ONE YEAR PRIOR TO THE OCTOBER 12, 1994,
FILING DATE OF THE '961 APPLICATION

44. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that Acres had sold and installed a progressive jackpot system for table games at the Rio Suites Hotel & Casino in Las Vegas in August, 1993, and that system qualified as prior art under 35 U.S.C. §102(b).

45. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that Acres had sold a progressive jackpot system for slot machines more than one year prior to the filing date

of the '961 application to the Treasure Island Casino in Las Vegas which was scheduled to open in late October, 1993, and that sale "prima facie" qualified as prior art under 35 U.S.C. §102(b).

46. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that Acres had offered a "bonus system" for slot machines more than one year prior to the filing date of the '961 application to the Casino Royale in Las Vegas and those offers (April 20, 1993, CDS 0008230; July 30, 1993, CDS 0008206-9) "prima facie" qualified as prior art under 35 U.S.C. §102(b).

47. I expect to testify that, based on the documents and testimony reviewed to date, the fact that Acres included the Concept III brochure describing the promotion systems, including "Double Jackpot Time", "Bonus Jackpots", "Progressive Jackpots", and "Cashless Play", with proposals in situations in which the prospective buyer had not yet agreed to buy the promotion systems, supports the conclusion that the systems in the Concept III brochure were in fact on sale and that, as Attorney McCollom testified, at pages 236-7 of his deposition of December 9, 1998, Acres "had been in a marketing mode" before the filing date of the '961 application.

48. I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to whether the "prima facie" qualification of the sales and/or offers as prior art under 35 U.S.C. §102(b) can be successfully rebutted.

THE "ON-SALE" ACTIVITIES WERE INFORMATION
MATERIAL TO PATENTABILITY UNDER 37 CFR §1.56

49. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the "on-sale" activities were information material to patentability and required to be disclosed to the PTO Examiner.

50. I expect to testify that the Rio Suites August, 1993, installation of progressive jackpots for table games was information material to patentability which established "a prima facie case of unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 in view of Acres' representation to the Nevada Gaming Control that the "progressive jackpot system architecture" for slot machines was "the slot versions" of the table game systems which "have met the review of your department." See ¶ 40 above and Acres' letter of September 15, 1993, to Kim Lighthart of Nevada Gaming Control.

51. I expect to testify that Attorney McCollom's "Patent validity study and opinion" (McCollom Exhibit 136) and his testimony quoted above in ¶ 42 also supports a conclusion that the Rio Suites August, 1993, installation of table games was information material to the patentability of the '882 and '817 applications.

52. I expect to testify that the Treasure Island sale referenced in Exhibits 6 and 169 was information material to patentability which established "a prima facie case of

unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 in view of the description of the Concept III products in Exhibits 6 and 169 and the Concept III brochure. See, for example, the description under "Progressive Jackpots for Slot Machines" on page 18 of Exhibit 6.

53. I expect to testify that the Casino Royale "bonus system" offer was information material to patentability which established "a prima facie case of unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 in view of the descriptions in Exhibits 6 and 169 and the Concept III brochure.

54. I expect to rely, to the extent necessary and appropriate, upon the opinions and testimony of CDS' technical expert(s) as to whether the "prima facie case of unpatentability" of the Claims of the '882 and '817 patents under 35 U.S.C. §102(b) and/or §103 can be successfully rebutted.

THE LEVEL OF MATERIALITY

55. I expect to testify that, based on the documents and testimony reviewed to date, the level of materiality of the information material to patentability which was not disclosed, and the importance of the failures in the duty of candor and good faith, were such that "but for" the failures in the duty of candor and good faith and the duty of disclosure the Claims of the '882 and '817 applications would not have issued when they did issue, or at least would not have issued without the prosecution histories of the patent applications

being clarified as to why they should issue.

56. I expect to testify that the present circumstances are not some isolated instance of a single failure to disclose one item of information in one application. Instead, the failures to disclose information material to patentability and the failures to comply with the duty of candor and good faith, began with the first of the Acres et al. applications, the '961 application, when Acres' spiral bound product brochure, Exhibit 172, was used to prepare the '961 application and then not disclosed to the PTO Examiner. It is undisputed that the drawing from Exhibit 172 (2043570) "wound up as figure one of the '961 patent", and also as figure 1 of the '882 and '817 patents. See ¶ 18 above. In addition, language and descriptions from portions of Exhibit 172 closely parallel that of the '882 and '817 applications and patents. Compare, for example, column 19, line 66- column 20, line 2, of the '882 patent (column 20, lines 18-21, '817 patent) with the language in Exhibit 172 at 2043564 which reads:

"Concept III lets you run promotions on any properly equipped machines in your casino while simultaneously gathering player tracking and accounting data from all machines."

Compare, also, the representation at 2043567 of Exhibit 172 under the heading "Player Tracking" that

"[o]ur software also lets you schedule busses and other groups and measure their profitability"

with

column 29, lines 23-5 of the '882 patent ('817 patent, column 29, lines 39-41) which reads:

"The player tracking according to the invention allows the casino to schedule buses and other groups and measure their profitability."

I expect to testify that it is clear from a comparison of Exhibit 172 with the '882 and '817 patents that Exhibit 172 was used in preparing the '961 application, from which the '882 and '817 applications were filed as divisional applications under 37 CFR §1.60.

57. I expect to testify that the comparisons made above in ¶s 19 and 20 establish that Exhibit 172 and the '882 and '817 patent Claims are "prima facie" describing the same methods of operating. Thus, the materiality of Exhibit 172 to the patentability of the '882 and '817 applications was extremely high and it was not disclosed in the '961 application, the '882 application, or the '817 application.

58. I expect to testify that the evidence is clear and convincing that Acres Exhibit 6, the FORM SB-2, was a printed publication which was of an extremely high level of materiality and which was not disclosed to the PTO Examiner in any of the three applications ('961 or '882 or '817).

59. I expect to testify that if the FORM SB-2 had been disclosed to the PTO Examiner in the applications the Examiner would have been made aware of the list of installations Acres had contracts for, or had installed, or was in the process of installing. The details and descriptions in the FORM SB-2 would also have informed the Examiner of the types of installations involved. This highly material information was not disclosed in each of the '961 application, the '882 application, and the

'817 application, and therefore was not considered by the PTO Examiner in granting any of the three patents.

60. I expect to testify that the information on Acres "on sale" activities was of an extremely high level of materiality and was not disclosed to the PTO Examiner in any of the '961 application, the '882 application, or the '817 application.

61. I expect to testify that the offer of a bonus system for a set price to Casino Royale prior to the critical date of October 12, 1993 was clearly information highly material to patentability which was not disclosed to the PTO Examiner in any of the three applications.

62. I expect to testify that the Treasure Island Casino contract entered into by Acres prior to the critical date of October 12, 1993, for "Progressive jackpots for slot machines" was clearly information highly material to patentability which was not disclosed to the PTO Examiner in any of the three applications.

63. I expect to testify that Acres' characterization (§ 40 above) of the progressive jackpot system for slot machines as the "slot versions" of the progressive jackpot system for table games establishes the high level of materiality of the installation completed at Rio Suites Hotel & Casino in August, 1993. No disclosure of the completed system was made to the PTO Examiner in any of the three applications.

THE DOCUMENTS AND TESTIMONY REVIEWED TO DATE
PROVIDE NO REASONABLE EXPLANATION FOR THE
FAILURES SO AS TO ESTABLISH OR SUGGEST THAT
THEY OCCURRED IN GOOD FAITH

64. I expect to point out that both Acres and Attorney McCollom were aware of the necessity to disclose prior art systems to the PTO Examiner as demonstrated by Attorney McCollom's "Patent validity study and opinion Our Docket No. 4164-1" (McCollom Exhibit 136; GPM 0003105-28), addressed to Acres which stated, at GPM 0003108, that

"[i]t is our opinion that the examiner would not have allowed the claims in the form set forth in the issued patent had he been aware of the prior art progressive blackjack and slot machine systems which you described to us."

One page earlier (GPM 0003107), the opinion referenced "a duty imposed upon applicants for U.S. patents by federal regulations" "to disclose relevant prior art of which the applicant was aware."

65. I expect to testify that even though both Acres and Attorney McCollom were aware of the duty of disclosure requirements, the "References Cited" on the front or first page of the '961 patent, the '882 patent, and the '817 patent include only "U.S. Patent Documents" and "Foreign Patent Documents".

66. I expect to point out that Attorney McCollom testified, at pages 192-3 of his deposition of December 9, 1998, that he informed "the client" ["Acres Gaming and the inventors"] of "their obligations to disclose material prior art" to the PTO

and believed "they understood their obligation" prior to filing the patent application.

67. I expect to point out that Acres testified, at his deposition of March 16, 1999, that when he signed the papers relating to the patent application he understood that he was "under obligation to provide the patent office with material prior art".

68. I expect to point out that Attorney McCollom has testified, at pages 236-8 of his deposition of December 9, 1998, that, prior to the filing of the '961 application, he was aware that Acres had been in a "marketing mode" and that prior to September 4, 1997, "I recall mention of the Winnebago effort" and "I knew about the Treasure Island installation". Thus, Attorney McCollom knew about both "the Winnebago effort" and "the Treasure Island installation" prior to the May 19, 1998, issue date of the '882 patent and the November 17, 1998, issue date of the '817 patent.

69. I expect to point out that, at pages 361-3 of his deposition of December 9, 1998, Attorney McCollom testified as follows:

"Q. *** Do you have any basis for believing that Exhibit 172 was not used in marketing by Gaming Innovations?

"A. Yes.

"Q. What is the basis for believing that Exhibit 172 was not used in marketing by Gaming Innovations?

"A. The only basis I have is that my normal practice with a client, when receiving a document like this, would be to discuss the

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nature of the document and ask when it was created and if it was distributed, and if so, to whom.

"Q. All right. Did you ask if there were any other versions of it, Exhibit 172?

"A. I don't recall.

"Q. Did you make any notes of any conversations regarding Exhibit 172?

"A. I don't think I did.

"Q. Did you request any marketing information that was distributed by Acres Gaming prior to filing the patent application?

"A. No, I didn't. I requested -- prior to filing the application, I did request information that we could use to write the application.

"Q. Can you recall ever asking anyone what Exhibit 172 was used for?

"A. I don't recall. But again, my normal practice would be to make that inquiry.

"Q. *** The title of Exhibit 172 is Gaming Innovations. Do you see that?

"A. Yes.

"Q. And you were involved in the initial public offering for Acres Gaming, correct?

"A. That's correct.

(p. 363)

"Q. So just based on the name alone, you knew, did you not, that Exhibit 172 dated from the pre IPO era; isn't that fair?

"A. I think it's fair to say that it's likely that it did."

70. I expect to point out that, at pages 365-6 of his

deposition of December 9, 1998, Attorney McCollom testified that even if a court determines that Exhibit 172 is prior art to the '882 patent it would not

"be material such that ... [he] would feel, under the duty of candor, that ... [he] had an obligation to turn it over to the patent examiner"

because

"I don't think it describes the claimed invention, nor does it enable the person skilled in the art to practice it."

71. I expect to point out that the Treasure Island installation, which Attorney McCollom knew about during the time both the '882 and '817 applications were being examined (see ¶ 68 above), was sold to Treasure Island by Acres who negotiated the sale (Acres deposition, 6/29/98, p. 66).

72. I expect to point out that Attorney McCollom has testified, at pages 171-4 of his deposition of September 1, 1998, that he did not know about Exhibit 6, the FORM SB-2, until a week before his deposition, but that he would not have cited it to the Examiner because

"I don't think it's material, and I know of no facts that would lead me to believe that it was published more than 1 year prior to the filing date."

73. I expect to point out that Acres signed the FORM SB-2 but did not disclose it to his patent attorney because

"I didn't see any relevance." (See ¶ 24 above).

74. I expect to testify that, based on the documents and testimony reviewed to date, no reasonable explanations have been given for the many failures to disclose information

material to patentability and the many failures in the duty of candor and good faith. The documents and testimony reviewed to date clearly and convincingly establish that both Acres and Attorney McCollom knew that Acres had been in a "marketing mode" prior to the critical date. Further, Attorney McCollom, as well as Acres, knew, while the '882 and '817 applications were being examined about the Treasure Island installation and the Winnebago effort. Both Acres and Attorney McCollom were involved in Acres' initial public offering, Acres signing the FORM SB-2 and Attorney McCollom assisting the underwriters in preparing or reviewing the prospectus, and purchasing shares (see ¶ 26 above). Even if Acres and/or Attorney McCollom believed the initial public offering documents were not prior art, or were not enabling, such documents disclosed the contracts Acres had obtained prior to the critical date and were highly material for that reason alone. Contrary to Attorney McCollom's allegation that Exhibit 172 was not material (see ¶ 70 above), Exhibit 172 was used by Attorney McCollom in preparing the '961 application and was likewise highly material, containing as it did Figure 1 of all three patents. No reasonable explanation has been advanced, or is apparent, for the failures in disclosure and the duty of candor and good faith which have been clearly and convincingly established by the documents and testimony reviewed to date. As the Court of Appeals for the Federal Circuit has stated in La Bounty Manufacturing Inc. v. U.S. International Trade Commission, 22 USPQ2d 1025, 1033

(Fed. Cir. 1992),

"La Bounty argues, nevertheless, that the ALJ's finding should be set aside because the issues respecting experimental use ... were 'close' and, therefore, Roy La Bounty and his attorney could reasonably have decided these devices did not have to be disclosed. On the contrary, that makes it all the more necessary that the devices should have been disclosed to the examiner. Close cases should be resolved by disclosure, not unilaterally by the applicant."

In the present circumstances, there is no basis to conclude that Acres and his attorney "could reasonably have decided" the information did not have to be disclosed, or that this is even a "close case".

INTENT TO DECEIVE

75. I expect to testify that, based on the documents and testimony reviewed to date, the failures to disclose information material to patentability, and the failures in the duty of candor and good faith, which have been shown by clear and convincing evidence, were acts whose natural consequences were presumably intended by those substantively involved in the preparation and prosecution of the applications leading to the '882 and '817 patents, i.e., the '961 application, the '882 application, and the '817 application. This showing by clear and convincing evidence of acts the natural consequences of which were presumably intended by the actors is sufficient to establish that the acts occurred as a result of an intent to deceive. The natural consequences of the failures to disclose the Concept III brochure (Exhibit 172, Exhibit 3, and/or other

versions), the FORM SB-2 (Exhibit 6), and the "on sale" activities, including at least the Casino Royale "bonus system" offers, the Treasure Island contract for "Progressive jackpots for slot machines", and the completed August, 1993, Rio Suites Hotel & Casino installation of "Progressive jackpots for table games", were that the '961 application, the '882 application, and the '817 application, would all issue as United States patents without the PTO Examiner having considered all of this highly material information.

BALANCING OF MATERIALITY AND INTENT

76. I expect to testify that, based on the documents and testimony reviewed to date, balancing the high level of materiality of the information not disclosed and the importance of the failures in the duty of candor and good faith, which have been shown by clear and convincing evidence, with the clear and convincing showing of intent, justifies and necessitates a finding that the '882 and '817 patents were obtained through inequitable conduct, and that the finding is supported by clear and convincing evidence. The documents and testimony reviewed to date clearly and convincingly support a conclusion that "but for" the failures the '882 and '817 patents would not have issued with the Claims they now contain, or at least would not have issued without the record being clarified as to why they should issue.

CONCLUSION ON INEQUITABLE CONDUCT

77. I expect to testify that, based on the documents and testimony reviewed to date, the evidence is clear and convincing that the '882 and '817 patents were obtained through inequitable conduct.

As I may become aware of additional information regarding these issues and other issues, I reserve the right to modify my opinions stated in this report and develop additional opinions on other issues. I also may testify in rebuttal to positions taken by Acres Gaming during the presentation of its case.

III. INFORMATION RELIED ON IN SUPPORT OF OPINIONS

The information relied on in support of my opinions includes the following:

1. Knowledge, skill, experience, training and education of expert witness.
2. Acres et al. United States Patent No. 5,655,961 and its prosecution history.
3. Acres et al. United States Patent No. 5,752,882 and its prosecution history.
4. Acres et al. United States Patent No. 5,836,817 and its prosecution history.
5. Depositions of John F. Acres taken June 29, 1998, and March 16 and 17, 1999, and Exhibits 5-8 and 254-286.
6. Depositions of Alan McCollom taken September 1 and December 9, 1998, and Exhibits 124-137 and 153-177.

7. Deposition of Alec Ginsberg taken July 10, 1998, and Exhibit 9.
8. Depositions of David Wiebenson taken June 11, 1998, and March 4, 1999, and Exhibits 1-4 and 234-253.
9. Deposition of Jose Vega taken January 25, 1999, and Exhibits 185-200.
10. Deposition of Mary Ann Wismer taken February 25, 1999.
11. Deposition of Elizabeth Borchard taken August 31, 1998, and Exhibits 100-123.
12. Deposition of Richard Heise taken September 30, 1998, and Exhibits 33-55.
13. Deposition of Robert Brown taken June 11 and December 10, 1998.
- 14 Deposition of Michelle Ware taken December 8, 1998.
15. Casino Royale documents CDS 0008206-37.
16. Schodde letter dated May 21, 1999, with NGCB 0163-8.
17. Acres letter of September 15, 1993, to Kim Lighthart (0048-51).
18. Expert Witness Report of Thomas F. Smegal, Jr.
19. Expert Witness Report of Leroy A. Prohovsky dated February 16, 1999.
20. Transcript of Hearing of January 19, 1999, before Judge McKibben.
21. CDS' 3rd, 4th, 5th, and 6th Motions for Summary Judgment and Acres' Responses thereto, as well as earlier Motions and papers filed.
22. U.S. Patents No. 4,652,998; 4,837,728; 5,249,800; 5,326,104; 5,580,309; and 5,668,950.
23. UK Patent Application GB 2151054A.

24. PCT Published Application WO 95/30944.

25. Various sections of Title 35, United States Code; Title 37, CFR; the MPEP; and various Court decisions.

CONSULTING FEE

I am compensated at the rate of \$ 200.00 per hour
plus out of pocket expenses for my work on this case.

June 3, 1999

Date

R. Franklin Burnett

R. Franklin Burnett

Qualifications And Experience

Of

R. Franklin Burnett
4902 Highway 25 South
Greenwood
South Carolina 29646-9084
Phone: (864) 227-1332

Qualifications

Education: B.S., Agricultural Engineering (1956),
Clemson University, Clemson, S.C.

Juris Doctor With Honors (1962),
The George Washington University,
Washington, D.C.

Bar Membership: District of Columbia

Qualified
To Practice: Before U.S. Patent and Trademark Office

Personal

Born: July 5, 1934, Married. Two Children.

Experience

1989 to Present
Patent Consultant

1989
Consultant to the Government of Indonesia on establishing
a Patent System and Patent Office

- Management consultant to the Director General of
Copyrights, Patents, and Trademarks of the Ministry
of Justice of Indonesia

- taught a course in patent law and patent examination
to prospective Indonesian patent examiners

R. Franklin Burnett
page 2

1972-1989

Special Assistant To The Assistant Commissioner For Patents, USPTO

Position was in the Senior Executive Service (SES) of the Federal Government and had various wide ranging legal, technical, administrative, and supervisory responsibilities, including

- providing staff assistance to Assistant Commissioner (Presidential Appointee) responsible for the patent examining and documentation organizations which had over 1600 professional and over 500 clerical employees
- developing new patent examining programs and the rules and procedures to carry them out
- supervising Special Program Examination Unit composed of 10-15 examiners (lawyers) and a number of clerical employees
- participating in negotiating, modifying, and implementing international patent treaties and agreements involving the major developed and developing countries of the world
- drafting patent legislation which was later enacted into law
- negotiating labor agreements with organizations representing USPTO employees
- representing the USPTO in various meetings with, and by speaking before, public and international groups
- testifying on behalf of the USPTO as a witness in various arbitration proceedings and in Federal Court
- directing, during a period of two years in the 1970's, two patent examining groups, each including in excess of 100 professional and clerical employees

Reason for leaving: Retirement after 33+ years Federal Government service

R. Franklin Burnett
page 3

1967-1972

Supervisory Patent Examiner, Examining Group 160, (Chemical Engineering) USPTO

Responsible for the direct supervision and training of about 20 patent examiners in the examination of patent applications.

1966-1967

Commerce Science & Technology Fellow

Selected to participate in, and participated in, Commerce Science & Technology Fellowship Program. Educational and work program which included training in public policy issues by the Brookings Institution, Congressional orientations, and on-the-job experience as an attorney with the Environmental Science Services Administration (ESSA).

1959-1966

Patent Examiner
USPTO

Examined patent applications in various mechanical engineering fields of technology.

1957-1959

United States Army Officer

Commanded various units of paratroopers in the 50th Airborne Signal Battalion, Fort Bragg, North Carolina. Highest rank on active duty-1st Lieutenant; discharged from Army Reserve as a Captain.

1956-1957

Patent Examiner
USPTO

Examined patent applications in various mechanical engineering fields of technology.

Honors And Awards

Recipient of the Meritorious Executive Rank Award in the SES (1986); Recipient of the Department of Commerce Gold Medal Award (1984) and Silver Medal Award (1975) and numerous other performance awards; served on The George Washington University Law Review.

List of Cases in which R. Franklin Burnett has testified
at trial or in court since leaving the Patent and Trademark
Office in August 1989

1. Spindelfabrik Suesen-Schurr, et al., Plaintiffs v. Schubert & Salzer Maschinenfabrik Aktiengesellschaft, et al., Defendants, C.A. No. 83-2421-3, United States District Court For The District Of South Carolina, Greenville Division
2. Golden Valley Microwave Foods, Inc., Plaintiff v. Weaver Popcorn Company, Inc., et al., Defendants, C.A. No. F 88-00251, United States District Court For The Northern District Of Indiana, Fort Wayne Division
3. Tarkett, Inc., Plaintiff v. Congoleum Corporation, Defendant, C.A. No. 91-CV-4830, United States District Court For The Eastern District Of Pennsylvania
4. Kinetic Concepts, Inc. v. Support Systems International, Inc. and SSI Medical Services, Inc., C.A. No. SA-91-CA-0927, Western District of Texas, San Antonio Division
5. C.R. Bard, Inc. v. M3 Systems, Inc., C.A. No. 93-C-4788, Northern District of Illinois, Eastern Division
6. Tronzo v. Biomet, Inc., Civil Action No. 91-8175-CIV, Southern District of Florida, West Palm Beach Division
7. Viskase Corporation v. American National Can Company, C.A. No. 93 C 7651, Northern District of Illinois, Eastern Division
8. Rieter Ingolstadt Spinnereimaschinenbau Aktiengesellschaft v. Hollingsworth Saco Lowell Corporation, C.A. No. 6:92-2207-3AK, United States District Court For The District of South Carolina, Greenville Division
9. Pacesetter, Inc. v. Cardiac Pacemakers, Inc., Civil Action No. 4-96-1084, United States District Court For The District of Minnesota, Fourth Division

List of Depositions of R. Franklin Burnett since leaving the
Patent and Trademark Office in August 1989

1. Kimberly-Clark Corporation, Plaintiff v. AMOCO Fabric and Fibers Company, Defendant, Civil Action File No. 1:91-CV-2211-HTW, United States District Court For The Northern District Of Georgia, Atlanta Division
2. GRiD Systems Corporation and Tandy Corporation v. Texas Instruments Incorporated, et al., Civil Action No. C-90-2571-DLJ, United States District Court, Northern District of California
3. Ball Corporation v. American National Can Company, Civil Action No. IP91 434C, United States District Court, Southern District of Indiana, Indianapolis Division
4. Rieter Ingolstadt Spinnereimaschinenbau Aktiengesellschaft v. Platt Saco Lowell Corporation, Civil Action No. 6-92-2207-3, United States District Court For The District Of South Carolina, Greenville Division
5. Kinetic Concepts, Inc. v. Support Systems International, Inc. and SSI Medical Services, Inc. C.A. No. SA-91-CA-0927, Western District of Texas, San Antonio Division
6. Dallas Semiconductor Corporation v. Crystal Semiconductor Corporation, Civil Action No. A94-CA580-SS, Western District of Texas, Austin Division
7. Viskase Corporation v. American National Can Company, Civil Action No. 93 C 7651, Northern District of Illinois, Eastern Division
8. Tronzo v. Biomet, Inc., Civil Action No. 91-8175-CIV, Southern District of Florida, West Palm Beach Division
9. IRO AB and IRO, Inc. v. Sarfati & Vischiani S.p.A., et al., Civil Action No. 6:94-2834-3, District of South Carolina, Greenville Division
10. In The Matter Of: Certain Electronic Products Including Semiconductor Products, Manufactured By Certain Processes, Investigation No. 337-TA-381, United States International Trade Commission, Washington, D.C. 20436
11. The Johns Hopkins University v. Cardiac Pacemakers, Inc., et al., Civil Action No. Y-96-1527, District of Maryland, Northern Division
12. Pacesetter, Inc. v. Cardiac Pacemakers, Inc., Civil Action No. 4-96-1084, United States District Court For The District of Minnesota, Fourth Division

Page 2

List of Depositions of R. Franklin Burnett since leaving the
Patent and Trademark Office in August 1989

13. Angeion Corporation v. Cardiac Pacemakers, Inc.,
Civil Action No. 97-1681 JMN/FLN, United States District
Court For The District of Minnesota, Fourth Division
14. The Regents Of The University Of California v. Genentech, Inc.,
Civil Action No. 90-2232 CAL, United States District Court
For The Northern District Of California
15. Connaught Laboratories, Inc. v. SmithKline Beecham P.L.C., et al.
Civil Action No. 3: CV-97-1406, United States District Court
For The Middle District of Pennsylvania

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Certificate of Service

I hereby certify that a copy of the foregoing EXPERT WITNESS REPORT OF R. FRANKLIN BURNETT was served on the following persons:

Via First Class Mail

Mark Rosencrantz, Esq.
Jolley Urga Wirth & Woodbury
3800 Howard Hughes Parkway, 16th Floor
Las Vegas, Nevada 89109

Via First Class Mail

Adam P. Segal, Esq.
Schreck Morris
1200 Bank of America Plaza
300 South Fourth Street
Las Vegas, Nevada 89101

Via First Class Mail

Allan T. McCollom, Esq.
Marger, Johnson, McCollom & Stolowitz, P.C.
1030 S.W. Morrison Street
Portland, Oregon 97205

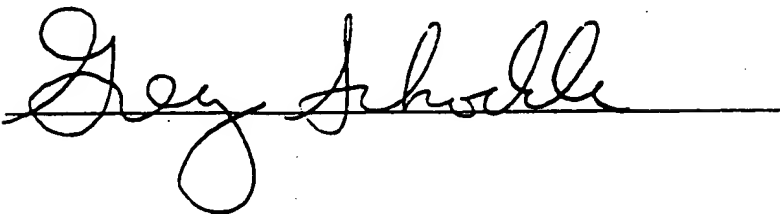
Via Federal Express

Jerry A. Riedinger, Esq.
Perkins Coie LLP
1201 Third Avenue, 40th Floor
Seattle, Washington 98101-3099

Via Federal Express

Steven E. Shapiro, Esq.
Mitchell Silberberg & Knupp, LLP
11377 West Olympic Boulevard
Los Angeles, California 90064-1683

Dated: June 4, 1999



1 William R. Urga
2 Nevada Bar No. 001195
3 Mark Rosencrantz
4 Nevada Bar No. 006475
5 JOLLEY, URG, WIRTH & WOODBURY
6 3800 Howard Hughes Parkway, 16th Fl.
7 Las Vegas, Nevada 89101
8 (702) 699-7500

9 Jerry A. Riedinger
10 Michael D. Broaddus
11 Mark G. Jackson
12 PERKINS COIE LLP
13 1201 Third Avenue, 40th Fl.
14 Seattle, WA 98101-3099
15 (206) 583-8888

16 Attorneys for Acres Gaming Inc.

17 UNITED STATES DISTRICT COURT

18 DISTRICT OF NEVADA

19 MIKOHN GAMING CORP.,
20
21 Plaintiff,

22 v.

23 ACRES GAMING INC.,
24
25 Defendant,

26 ACRES GAMING INC.,
27
28 Plaintiff,

v.

MIKOHN GAMING CORPORATION; NEW
YORK NEW YORK HOTEL & CASINO
DATA SYSTEMS; and SUNSET STATION
HOTEL & CASINO,
Defendants.

1462
NO. CV-S-98-1383-HDM (LRL)
(Base File)

REBUTTAL STATEMENT BY
EXPERT WITNESS THOMAS F.
SMEGAL, JR.

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I. Introduction

I am Thomas F. Smegal, Jr. I have been retained as an expert witness by Plaintiff Acres Gaming Inc. ("Acres") in the above-referenced action. I have previously submitted an Expert Witness Report in this consolidated case (NO. CV-S-98-¹⁴⁶²~~1383~~-HDM (LRL) (Base File) ("Second Consolidated Case"), dated June 4, 1999, which I incorporate into this rebuttal statement. In that June 4, 1999 Report, I describe my technical background and qualifications, and I provided a detailed description of the process and procedures for prosecution of patents before the PTO and the issuance of patents by the PTO. The documents reviewed by me in connection with the June 4, 1999 Report, include the patents-in suit in the Second Consolidated Case, i.e. the '459 and '817 patents, and also the prosecution history for each of the '459 and '817 patents-in-suit.

I also previously submitted an Expert Witness Report in the co-pending consolidated case (NO. CV-S-97-1383-HDM (LRL) ("First Consolidated Case") in February 1999, which I incorporate into this rebuttal statement. In that Report, I describe my technical background and qualifications, and I provided a detailed description of the process and procedures for prosecution of patents before the PTO and the issuance of patents by the PTO. The documents reviewed by me in connection with that February 1999 Report, include the patents-in suit in the First Consolidated Case, i.e. the '961 and '882 patents, and also the prosecution history for each of the '961 and '882 patents-in-suit.

In addition, in preparing this rebuttal statement, I also have reviewed the Declaration of John F. Acres dated October 5, 1998, the Supplemental Declaration of John F. Acres dated May 21, 1999, the Rebuttal Statement by Expert Witness John F. Acres dated July 19, 1999, the Rebuttal Statement by Expert Witness William K. Bertram, Ph.D. dated March 15, 1999, and the Rebuttal Statement by Expert Witness William K. Bertram, Ph.D. dated July 19, 1999. I also have

1 reviewed the deposition transcript of Alan McCollom, John F. Acres and William K. Bertram,
2 Ph.D.

3 II. Evaluation Summary of Mr. Burnett's Report

4 I have reviewed the Expert Witness Report of R. Franklin Burnett dated June 7, 1999 ("the
5 Burnett Report"). I disagree with Mr. Burnett's conclusions regarding alleged inequitable conduct
6 during the procurement of the '817 and '882 patents. Mr. Burnett contends that certain "material"
7 information to the applications for both the '817 and '882 patents was available as a "printed
8 publication or as an "on sale activity" prior to October 12, 1993, i.e. more than one year before the
9 filing date of the application that matured into U.S. 5,655,961, of which the '882 and '817
10 applications are divisional applications filed under 37 CFR §1.60. Specifically, it is my opinion that
11 a comparison of claim 10 of the '882 patent with the content of the Concept III document, the SB-2
12 registration, and/or the "On Sale Activities" listed in the Burnett Report does not establish "a prima
13 facie case of unpatentability" and therefore is not information material to patentability under 37
14 CFR §1.56. It is also my opinion that a comparison of claim 22 of the '817 patent with the content
15 of the Concept III document, the SB-2 registration, and/or the "On Sale Activities" listed in the
16 Burnett Report does not establish "a prima facie case of unpatentability" and therefore is not
17 information material to patentability under 37 CFR §1.56.

18 In addition, I disagree with Mr. Burnett's conclusion that the failure to disclose the Concept
19 III document, the SB-2 filing, and/or the "On Sale Activities" listed in the Burnett Report by the
20 actors involved in the preparation and prosecution of the application leading to the '882 and '817
21 patents justifies an inference of "intent to deceive", as this term is understood and applied by the
22 Federal Circuit.
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III. Analysis

A. Concept III Document Was Not Material Under 37 CFR §1.56

I understand from technical experts Dr. Bertram and John Acres that the Concept III document would not teach a person of ordinary skill in the art to develop a system that has the elements of either claim 22 of the '817 patent or claim 10 of the '882 patent. In fact, according to Dr. Bertram, the Concept III document provides only an overview of what might be done, without providing any details at all. Further, John Acres testified that the Concept III document provides only a general description of various concepts and systems, without providing the details necessary to implement such concepts and systems. Finally, Alan McCollom, the attorney who prosecuted the '817 and '882 patents testified in deposition that he did not believe he had an obligation to disclose the information regarding Concept III to the patent examiner because it did not describe the claimed invention, and did not enable a person skilled in the art to practice it. McCollom Dep. at 365-366. As such, it is my opinion that the Concept III document does not establish "a prima facie case of unpatentability" of either claim 22 of the '817 patent or claim 10 of the '882 patent and therefore, was not information material to patentability under 37 CFR §1.56. Consequently, alleged "on sale activity" in the Burnett Report due to disclosure of the Concept III documents to Wisconsin Winnebago, Binion's Horseshoe Casino, and the Ramada Express Casino was not "on sale activity" that was material to the '817 and '882 applications.

B. SB-2 Registration Statement Was Not Material Under 37 CFR §1.56

I understand from technical experts Dr. Bertram and John Acres that the SB-2 Registration Statement would not teach a person of ordinary skill in the art to develop a system that has the elements of either claim 22 of the '817 patent or claim 10 of the '882 patent. In fact, according to

1 Dr. Bertram, the SB-2 Registration Statement provides only an overview of what might be done,
2 without providing any details at all. Further, John Acres has stated that the SB-2 Registration
3 Statement provides only a general description of various concepts and systems, without providing
4 the details necessary to implement such concepts and systems. As such, it is my opinion that the
5 SB-2 Registration Statement does not establish "a prima facie case of unpatentability" of either
6 claim 22 of the '817 patent or claim 10 of the '882 patent and therefore, the SB-2 was not
7 information material to patentability under 37 CFR §1.56.
8

9
10 **C. The "On-Sale Activities" in the Burnett Report Were Not Activities Material**
11 **to Patentability Under 37 CFR §1.56**
12

13 **1. Casino Royale Activities**

14 I understand that John Acres was involved in some discussions in April 1993 with personnel
15 at Casino Royal concerning a potential new Acres gaming product, called "Double Dollar Time"
16 which included a "bonus system". I also understand, according to John Acres, that in April 1993,
17 "Double Dollar Time" was merely a concept, not a product and a price was offered to gauge the
18 seriousness of Casino Royale's interest. Since such evidence does not suggest that "Double Dollar
19 Time" or the included "bonus system" actually existed in April 1993 or even later in July 1993, the
20 "bonus system" offer did not establish "a prima facie case of unpatentability" and was not
21 information material to patentability of the Claims of the '882 and '817 patents.
22

23 **2. Treasure Island Activities**
24

25 Mr. Burnett contends that Acres sold a progressive jackpot system for slot machines to the
26 Treasure Island Casino in Las Vegas more than one year prior to the filing date of the '961
27 application and that such sale "prima facie" qualified as prior art under 35 USC §102(b). I
28

1 understand from Dr. Bertram that the networked gaming system described and claimed in the '817
2 and '882 patent differs significantly from that system specified in connection with the Treasure
3 Island purchase order. Further, I understand from Dr. Bertram, a technical expert in the gaming
4 industry, that one skilled in the art of gaming device design would not, upon learning of the original
5 specifications of the Treasure Island installation, have understood that the invention of claim 22 of
6 the '817 patent or claim 10 of the '882 patent was contemplated in that purchase order. I also
7 understand from John Acres that the complete invention of the '882 patent was not conceived and
8 reduced to practice until several months after the Treasure Island casino opened on October 27,
9 1993. John Acres has also stated that the preselection feature of the invention of claim 22 had not
10 yet been developed when the Treasure Island casino opened in October 1993. As such, it is my
11 opinion that the gaming system installed at the Treasure Island Casino in October 1993 did not
12 establish "a prima facie case of unpatentability" and, therefore, was not information material to
13 patentability of the '882 and '817 patents.
14
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17 3. Rio Suites Hotel & Casino Activities

18 Mr. Burnett contends that Acres sold and installed a progressive jackpot system for table
19 games at the Rio Suites Hotel and Casino in August 1993 and that such sale "prima facie" qualified
20 as prior art under 35 U.S.C. §102(b) of the inventions claimed in the '817 and '882 patents. I
21 understand from Dr. Bertram that these table games encompassed conventional gaming device
22 technology in 1993 and did not include the inventions of the '882 patent or the '817 patent. In
23 particular, I understand that these progressive table games did not include machine payout of the
24 progressive amount. Instead, as explained by John Acres and Dr. Bertram, the dealer was required
25 to recognize the occurrence of the jackpot event, and the dealer would then cause the jackpot to be
26
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1 awarded. I also understand from John Acres that the Rio table games used conventional gaming
2 device technology in 1993 and did not include the inventions disclosed in the '817 or '882 patents.
3 As such, it is my opinion that the table games system installed at the Rio Suites Hotel and Casino in
4 August 1993 did not establish "a prima facie case of unpatentability" and, therefore, was not
5 information material to patentability of the claims of the '882 and '817 patents.
6

7
8 **D. The Burnett Report Fails to Establish Any Intent To Deceive**

9 I expect to testify that in order to establish the intent element of inequitable conduct, the
10 involved conduct, viewed in the light of all the evidence, including evidence indicative of good
11 faith, must indicate sufficient culpability to require a finding of intent to deceive. I also intend to
12 explain that the Federal Circuit has held that gross negligence alone does not mandate a finding of
13 intent to mislead and that the alleged conduct must not amount merely to the improper performance
14 of, or omission of, an act one ought to have performed. Rather, clear and convincing evidence
15 must prove that an applicant had the specific intent to mislead or deceive the PTO. In a case
16 involving nondisclosure of information, I will explain that the controlling Federal Circuit law
17 requires a showing that the applicant made a "deliberate decision to withhold a known material
18 reference." *See Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1181 (Fed. Cir. 1995); *see also Allied*
19 *Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570 (Fed. Cir. 1995); *Therma-Tru Corp. v.*
20 *Peachtree Doors Inc.*, 44 F.3d 988 (Fed. Cir. 1995); *Kingsdown Medical Consultants, Ltd. v.*
21 *Hollister, Inc.*, 863 F.2d 867 (Fed. Cir. 1988).
22
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25 Here, I have review the evidence in the Burnett Report, and even without consideration of
26 the good faith of the actors involved in the prosecution of the applications that matured into the
27 '817 and '882 patents, it is my opinion that the evidence relied upon in the Burnett Report is wholly
28

1 inadequate in demonstrating evidence that supports a finding of intent to deceive.

2 **IV. Mr Burnett's Relevant Experience**

3 I have reviewed the resume for Mr. Burnett attached to the Burnett Report and it appears
4 Mr. Burnett has no experience in the gaming industry. Further, I understand that Mr. Burnett was
5 not present during the depositions of John Acres or Alan McCollom and could not observe the
6 demeanor of these individuals during live testimony. I also expect to testify about the Special
7 Program Examination Unit at the PTO and the reasons why this Unit was disbanded.
8

9 **V. Conclusion**

10 It is my opinion that CDS and their expert Mr. Burnett have not identified any information
11 in the Burnett Report that would teach one skilled in the gaming device art in 1993 to make the
12 inventions described and claimed in the Acres '882 and '817 patents. As such, I do not believe that
13 the content of the Concept III document, the SB-2 registration, and/or the "On Sale Activities"
14 listed in the Burnett Report establish "a prima facie case of unpatentability" with respect to either
15 the '817 or '882 patents and therefore is not information material to patentability under 37 CFR
16 §1.56. Further, I disagree with Mr. Burnett's conclusion that the failure to disclose the Concept III
17 document, the SB-2 filing, and/or the "On Sale Activities" listed in the Burnett Report by the actors
18 involved in the preparation and prosecution of the application leading to the '882 and '817 patents
19 justifies an inference of "intent to deceive", as this term is understood and applied by the Federal
20 Circuit.
21
22
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24 Dated: 7/20/99

25 By: 

26 Thomas F. Smegal Jr.
27
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